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PSD2: Dopady na bankovní a fintech sektor

Diplomová práce

Vedoucí diplomové práce: JUDr. Tereza Kunertová, LL.M., Ph.D.

Katedra evropského práva

Datum vypracování práce (uzavření rukopisu): 03.09.2018

CHARLES UNIVERSITY

Faculty of Law

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**PSD2: The Implications for Banking and the
Fintech Industry**

Master's Thesis

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Date of completion (manuscript closure): 03.09.2018

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I hereby declare that this master's thesis represents my own work and all the sources used for this master's thesis have been duly acknowledged and cited. I declare that this master's thesis has not been used to achieve this or any other academic degree.

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Ondřej Dolenský

In Prague on 3 September 2018

Poděkování

V první řadě bych rád poděkoval JUDr. Tereze Kunertové, LL.M., Ph.D. za její trpělivost, čas, konstruktivní připomínky a flexibilitu. Zároveň bych rád vyjádřil poděkování svým rodičům za jejich neustávající podporu během mých studií. V neposlední řadě bych rád vyjádřil svoji vděčnost Aditovi Magudia za jeho podnětné připomínky a jazykovou korekturu.

Acknowledgement

First and foremost, I would like to thank JUDr. Tereza Kunertová, LL.M., Ph.D. for her patience, time, constructive comments and flexibility. I would also like to express my thanks to my parents for their continued support during my studies. Last but not least, I would like to express my gratitude to Adit Magudia for his critical comments and proof-read of this thesis.

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*“Banking is necessary, banks are not.”*¹

1. Introduction

Modern technology is changing the ways how we communicate, study, work and also manage our finances. Even though it may be hard for us to grasp the rapid growth of modern technology and we may have a hard time using this technology, regulators face even more difficult task. With respect to modern technology, regulators were entrusted with the power and task to lay down a legal framework that would properly reflect the development and protect the relevant stakeholders, while, at the same time, they should be promoting competition and further advancements. Despite their best efforts to set up an appropriate framework and keep up with the need of the technological developments, it is often argued that they are always one step behind, especially when it comes to financial regulation of banking.²

That being said, new legislation focusing (even marginally) on modern technology usually comes with high expectations from the wide public that these measures may promote the development of modern technology and ensure a competitive level playing field among the current market participants and “*new players*” entering the market. Nevertheless, these expectations influenced by the media coverage may escalate into a situation in which it is unclear whether the expectations are well-founded or greatly exaggerated. Examples of these situations can be seen in recent publicity connected with the adoption of the GDPR³ and the PSD2⁴. As will be demonstrated further in this thesis, many commentators expect that the PSD2 will reshape the banking industry and trigger further changes encouraging the growth of the Fintech industry.

Following the above-mentioned considerations, I have decided to ascertain whether PSD2 is capable of the predicted effects on the banking industry, i.e. whether the prediction regarding

¹ Richard Kovacevich. See e.g. ‘Is This Guy The Best Banker In America?’, *Fortune* (6 July 1998), available at: http://archive.fortune.com/magazines/fortune/fortune_archive/1998/07/06/244842/index.htm, last accessed 20. August 2018. This statement is sometimes wrongly attributed to Bill Gates. Instead, Bill Gates said: “*Banks are dinosaurs, we can bypass them.*” See ‘Culture Club’, *Newsweek* (7 November 1994), available at: <https://www.newsweek.com/culture-club-189982>, last accessed 20 August 2018. The most interesting fact about these statements is that they were articulated as early as in 1998 and 1994, respectively.

² See e.g. ‘Banking in the digital age: the failure of financial regulation’ (20 January 2015), *The Guardian*, available at: <https://www.theguardian.com/sustainable-business/2015/jan/20/finance-in-digital-age-while-regulation-stuck-in-industrial>, last accessed 25 August 2018.

³ Directive (EU) 2015/2366 of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market, amending Directives 2002/65/EC, 2009/110/EC and 2013/36/EU and Regulation (EU) No. 1093/2010, and repealing Directive 2007/64/EC [2015] OJ L 337/35 (23 December 2015).

⁴ Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) [2016] OJ L 119/1 (4 May 2016).

fate of banks quoted in the heading of this chapter may come true. Given my interest in modern technology and EU law, I decided to focus my thesis on the topic of the PSD2 and particularly on the possible benefits of the PSD2 for the growing Fintech industry.

1.1. Main objectives

Accordingly, one of the main objectives is to highlight the differences between the PSD⁵ and the PSD2, which would reveal the extent and complexity of changes the PSD2 is bringing about. In order to do that, it will be necessary to ascertain the position of the PSD and PSD2 within the framework forming the regulation of the payment systems at the EU level.

Further, this thesis will focus on the current regulation of banks in view of the fact that the regulation has strengthened following the Global financial crisis. As a result, one of the goals is to present an overview containing regulation of the banking industry, which will be subsequently compared with regulation of the Fintech industry.

Subsequently, the differences between the PSD and the PSD2 will be evaluated in the context of different levels of regulation of the banking and the Fintech industry. The aim will be to point out the possible direction of the development of these industries in connection with adoption of the PSD2. Therefore, one of the main objectives of this thesis is to provide a possible answer to the following question: Are the changes coming along with the introduction of the new directive on payment services combined with other novelties (such as Fintech) capable of disrupting the current banking system as we know it?

Given that the topic concerning modern technology and the financial regulation is very broad, the aim of this thesis is not to cover all the various regulations and trends relating to modern technology. Some of the topics, including crypto-currencies and various technological companies making use of the modern technology, will not be covered by this thesis. Therefore, this thesis should constitute an outline of the topic, which will focus mostly on the PSD2 and the Fintech industry. Since this area of law is still evolving, I would like to use this thesis as a basis for further research in the future and compare the outcomes of this thesis with the subsequent course of progress in this particular area of law together with the developments in the Fintech industry.

⁵ Directive (EC) 2007/64/EC of the European Parliament and of the Council of 13 November 2007 on payment services in the internal market amending Directives 97/7/EC, 2002/65/EC, 2005/60/EC and 2006/48/EC and repealing Directive 97/5/EC [2007] OJ L 319 (5 December 2007).

1.2. Content

This thesis is divided into five chapters. Following this brief introductory chapter, Chapter 2 will delve into the topic of banking and Fintech industry, which will mostly focus on the development and recent problems in these industries together with the respective regulation at the national and EU level. Then, Chapter 3 will provide an overview of the regulation of the payment systems at the EU level which will be followed by the original payment services directive (i.e. the PSD) and the revised payment services directives (i.e. the PSD2) with the main features of these directives. Subsequently, the assessment of the changes coming along with the PSD2 and possible prospects for the development of the Fintech industry will be provided in Chapter 4. Finally, Chapter 5 will summarise the outcomes of this thesis.

1.3. Methodology

In accordance with the main objectives specified above, this thesis will primarily use the descriptive analysis of the relevant legislation together with the analysis of cases that are included in Chapter 3 of this thesis. Further, the descriptive analysis will be supplemented with the comparative method in Chapters 2 and 3, which will compare the relevant legislation. Given that the PSD2 has been adopted quite recently, the academic literature concerning this directive is relatively scarce. As a result, this thesis will mostly draw inspiration from articles submitted by academics to academic journals. These sources will be further supplemented with online resources and the case-law of the CJEU.

2. A Primer on Banking and Fintech Industry

Given that this thesis is dedicated to the impacts of the revised directive on payment services (i.e. PSD2) and ensuing changes to banking and the Fintech industry, it is worthwhile to define these terms at the very outset of this thesis. Therefore, this chapter is going to discuss the definition of the banking system as we currently know it (2.1), fundamentals of the banking regulation in the EU (2.1.1) that will be followed by an overview of the Global financial crisis (2.1.2) and the resulting regulation which emerged afterwards (2.1.3). The regulation of the banking system will be compared to the developing market of the Fintech industry, which represents the abbreviation of the phrase financial technologies⁶ (2.2).

Before delving into the detailed analysis, it is worth noting that the purpose of this thesis is to assess the impacts of the PSD2 on banking and Fintech industry. Consequently, this chapter will provide an overview of banking and Fintech industry with the respective regulation of these two sectors in order to ascertain whether the level of regulation is comparable, and thus whether a level playing field is guaranteed. Accordingly, not all of the innovative start-ups and companies in the emerging technological innovation sector, such as PropTech, InsurTech and MortgageTech, will be analysed in greater detail. The main aim will be to provide an overview of the current situation in which these industries approach (potential) changes coming along with the PSD2.

2.1. Banking system and the recent problems

The simplest definition of banking is that banking comprises of certain services and business offered and provided by the banks.⁷ However, more precise definition can be achieved through delimitation of the respective activities banks perform in the economy.⁸ These activities include taking and holding deposits and/or other repayable funds from wide public (primarily households and firms)⁹ and investments of the (received) funds in their own name, especially by providing various types of loans.¹⁰

⁶ See e.g. DORFLEITNER, Gregor, HORNUF, Lars, SCHMITT, Matthias and WEBER, Martina. *Fintech in Germany*. New York, NY: Springer Berlin Heidelberg, 2017, pp. 5-10. The detailed analysis of the term Fintech will be given in part 2.2 of this thesis.

⁷ 'Definition of banking', Oxford Dictionaries, Oxford University, available at: <https://en.oxforddictionaries.com/definition/banking>, last accessed 20 August 2018.

⁸ BERGER, Allen N, MOLYNEUX, Philip and WILSON, John O. S. *The Oxford handbook of banking*. 2nd edition. New York: Oxford University Press, 2015, pp. 27-28.

⁹ *Ibid.*

¹⁰ Banks perform many other activities in the economy, but the above-mentioned activities form the core of the activities performed by traditional banking. The provided definition is based on the legal definition of "credit

As will be demonstrated in the following paragraphs, the banks and their activities are heavily regulated both at a national level and an international level, whereas the respective regulation of banks has been strengthened after the Global financial crisis with a view to prevent similar crisis.¹¹ The fundamental requirement to conduct banking activities in the Member States is to obtain appropriate authorisation before commencement of such activities.¹² This is reflected in the Czech Act on Banks which provides that a bank shall mean a joint-stock company having its registered office in the Czech Republic which (i) accepts deposits from the public, and (ii) provides loans, and which has been granted a banking licence.¹³

Even though the importance of the banks varies between the different countries and regions of the world, it is argued that due to their economic and financial importance they play a crucial role in the financial systems.¹⁴ As *Allen and Carletti* claim, banks have important role in connection with depositors' funds, “*contribute to the growth of economy*” and “*perform an important role in corporate governance*”.¹⁵ Therefore, it is necessary to further analyse banking regulation at the EU level and the changes to the banking regulation that were brought about by the Global financial crisis.

2.1.1. Fundamentals of banking regulation in the European Union

Integral part of the European Union, which “*has been a central part of European integration since the very beginning*”¹⁶, is the internal market formed by the “*four freedoms*”: free movement of goods, capital, workers and establishment and the provision of services.¹⁷ In general, the banking system is connected with free movements of capital and provision of services.¹⁸ Consequently, these two freedoms will be further examined.

institutions” defined in point (1) of Article 4(1) of the CRR as “*an undertaking the business of which is to take deposits or other repayable funds from the public and to grant credits for its own account*”. Consequently, the term “*banks*” will be used as a synonym of “*credit institutions*” in this thesis.

¹¹ See e.g. CRAIG, Paul, BÚRCA, de Gráinne. *EU law: text, cases, and materials*. 6th ed. Oxford: Oxford University Press, 2015, pp. 721-743.

¹² Article 8(1) of the CRD IV.

¹³ Article 1(1) of the Act No. 21/1992 Coll., on Banks, as amended.

¹⁴ See RADU, Riana Iren, STRATULAT, Angelica. ‘New Aspects Regarding the Role of Banks in Economy in the Context of Globalization’ (2017) *Annals of “Dunarea de Jos” University of Galati Fascicle I. Economics and Applied Informatics*, year 2017, issue 1, pp. 161-166 and BERGER and MOLYNEUX, op. cit. No. 8, pp. 27-46.

¹⁵ ALLEN, Franklin and CARLETTI, Elena as in BERGER and MOLYNEUX, op. cit. No. 8, p. 27.

¹⁶ TUOMINEN, Tomi. ‘The European Banking Union: A Shift in the Internal Market Paradigm?’ (2017) *Common Market Law Review*, volume 54, issue 5, p. 1361.

¹⁷ See e.g. CRAIG and BÚRCA, op. cit. No. 11, p. 608, and TOMÁŠEK, Michal, TÝČ, Vladimír, MALENOVSKÝ, Jiří, *et al. Právo Evropské unie*. 2nd ed. Prague: Leges, 2017. Student (Leges), pp. 208-213.

¹⁸ The author of this thesis is aware of the fact that the banking system is also closely connected with the freedom of establishment and relating provisions concerning the process of “*passporting*”. However, the space of this thesis precludes detailed analysis of these topics. As a result, passporting will be mentioned only briefly in the respective parts of this thesis in order to present some of the advantages this process brings about.

The core provision of free movement of capital included in Article 63 of the TFEU prohibits in its first paragraph all restrictions on the movement of capital “*between Member States and between Member States and third countries*”, while the second paragraph thereof prohibits in the same manner restrictions on payments. Articles 64 to 66 of the TFEU lay down certain exceptions from the above-mentioned prohibitions, especially in connection with taxation and the prudential supervision of financial institutions.¹⁹ In *Sanz de Lera*, the CJEU held that what is nowadays Article 63 of the TFEU shall have direct effect.²⁰ As a result, relevant Articles of the TFEU have vertical and horizontal effect, which enables them to be used both against the individuals and the state.²¹ As an example, that would be covered by the said effects can be mentioned a situation in which a bank prohibits payments between the Member States.²²

The second crucial freedom, which is closely connected to the topic of this whole thesis, covers freedom to provide services pursuant to Articles 56 to 62 of the TFEU. Pursuant to the aforementioned clauses, restrictions “*on freedom to provide services within the Union in respect of nationals of Member States who are established in a Member State other than that of the person for whom the services are intended*”²³ shall be prohibited.²⁴

In connection with regulation of banking in the EU, it is essential to elaborate on the institutions that influence EU regulation and banking system. Therefore, the following paragraphs will be dedicated to two of the significant institutions in this area, i.e. the European Central Bank and the European Banking Authority.

Firstly, the ECB together with the national central banks of the Member States whose currency is the euro are responsible of the monetary policy of the EU.²⁵ Further, the task of maintaining price stability was conferred on the European System of Central Banks, which is governed by the national banks of all Member States and the ECB.²⁶ The ECB is an independent body²⁷ with its own legal personality²⁸ that is entitled to make regulations, take decisions, make

¹⁹ See Article 65(1) of the TFEU. For details regarding the exceptions see e.g. CRAIG and BÚRCA, op. cit. No. 11, pp. 724-726.

²⁰ Joined Cases C-163/94, C-165/94 and C-250/94, *Criminal Proceedings Against Lucas Emilio Sanz de Lera and Others* [1995] ECLI:EU:C:1995:451.

²¹ CRAIG and BÚRCA, op. cit. No. 11, p. 722.

²² USHER, John A. *The law of money and financial services in the EC*. 1st ed. Oxford: Oxford University Press, 1994. Oxford EC law library, pp. 14-16.

²³ Article 56 of the TFEU.

²⁴ For an extensive analysis regarding the right of establishment and freedom to provide services see e.g. CRAIG and BÚRCA, op. cit. No. 11, pp. 794-851, and TICHÝ, Luboš, RAINER, Arnold, ZEMÁNEK, Jiří, KRÁL, Richard and DUMBROVSKÝ, Tomáš. *Evropské právo*. 5th ed. Prague: C.H. Beck, 2014. Academia iuris (C. H. Beck), pp. 380-391.

²⁵ Article 282(1) of the TFEU.

²⁶ Article 129(1) of the TFEU read in conjunction with Articles 282(1) and 283(1) thereof.

²⁷ Article 130 of the TFEU.

²⁸ Article 282(3) of the TFEU.

recommendations and deliver opinions in order to carry out the tasks that were conferred on it.²⁹ It has an Executive Board composed of the president, vice president and four other members³⁰ and a Governing Council that comprises of the members of the Executive Board and the Governors of the national central banks of the Member States whose currency is the euro.³¹ The importance of the ECB in relation to regulation is enshrined in Article 282(5) of the TFEU which provides that the ECB shall be consulted and may give its opinion to all proposed EU acts, and all proposals for regulation at national level. Following the Global financial crisis, the tasks of the ECB were extended to certain policies relating to the prudential supervision of banks, including specific supervisory tasks over the market³² and to specific advisory roles in procedure for the resolution of banks.³³

Secondly, the European Banking Authority has been established on 1 January 2011³⁴ as one of the parts of the European System of Financial Supervision³⁵ following the *De Larosière report*³⁶ and recommendations included therein. At the EU level, the ESFS was created comprising of the European Systemic Risk Board³⁷ with three micro-supervisory authorities, namely the EBA, the European Insurance and Occupational Pensions Authority³⁸ and the European Securities and Markets Authority³⁹. The EBA is an independent authority⁴⁰ with legal

²⁹ Articles 132(1) and 282(4) of the TFEU.

³⁰ Article 283(2) of the TFEU. The current president of the ECB is Mario Draghi. Retrieved from the official websites of the European Central Bank, available at: <https://www.ecb.europa.eu/ecb/orga/decisions/eb/html/index.en.html>, last accessed 25 August 2018.

³¹ Article 283(1) of the TFEU.

³² Council Regulation (EU) No. 1024/2013 of 15 October 2013 conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions [2013] OJ L 287/63 (29 October 2013).

³³ See the SRMR Regulation.

³⁴ Articles 1(1) and 82 of the Regulation (EU) No. 1093/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Banking Authority), amending Decision No. 716/2009/EC and repealing Commission Decision 2009/78/EC [2010] OJ L 331/12 (15 December 2010).

³⁵ Article 1(2) of the Regulation (EU) No. 1092/2010 of the European Parliament and of the Council of 24 November 2010 on European Union macro-prudential oversight of the financial system and establishing a European Systemic Risk Board [2010] OJ L 331/1 (15 December 2010).

³⁶ See DE LAROSIÈRE, Jacques et al., 'The High-Level Group on Financial Supervision in the EU' (25 February 2009), Brussels, available at: http://www.esrb.europa.eu/shared/pdf/de_larosiere_report_en.pdf?351e1b35ec1ca5e855d2e465383a311f, last accessed 25 August 2018.

³⁷ Article 1(1) of the Regulation, op. cit. No. 35.

³⁸ Article 1(1) of the Regulation (EU) No. 1094/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Insurance and Occupational Pensions Authority), amending Decision No. 716/2009/EC and repealing Commission Decision 2009/79/EC [2010] OJ L 331/48 (15 December 2010).

³⁹ Article 1(1) of the Regulation (EU) No. 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No. 716/2009/EC and repealing Commission Decision 2009/77/EC [2010] OJ L 331/84 (15 December 2010).

⁴⁰ Article 1(5) of the Regulation, op. cit. No. 34.

personality⁴¹, whose main task is to safeguard financial stability, the integrity, efficiency and orderly functioning of the banking sector and to improve functioning of the internal market, especially by ensuring effective and consistent level of regulation and supervision.⁴² In order to realise the tasks conferred on it, the EBA is authorised to draft regulatory technical standards, issue guidelines and recommendations, take individual decisions and issue opinions.⁴³ Furthermore, the EBA with its expertise shall contribute to the preparation of the European Single Rulebook in the banking including a harmonised prudential rules for banks in the EU.⁴⁴ The above-mentioned authorities of the EBA are particularly important in relation to the PSD2 given that many of the features of the revised payment system are based on technical standards, guidelines and opinions of the EBA, as will be further demonstrated.

The provided analysis of the fundamental regulation of the EU banking system represents only the general frameworks which is further supplemented by the extensive secondary legislation focusing on the topic of banking regulation.⁴⁵ Therefore, the following paragraphs will briefly mention the roots of the Global financial crisis together with the resulting changes to banking regulation in the EU.

2.1.2. The Global financial crisis of 2007-2008 and the impacts on banking

Due to the fact that most of the aspects of the Global financial crisis were analysed in detail by many other authors⁴⁶, this thesis will provide a basis overview of the causes of the Global financial crises, which led to the changes in regulation of banking system and arguably contributed to the growth of the Fintech companies.⁴⁷

The core of the Global financial crisis can be seen in the subprime mortgage market⁴⁸, but the crisis has spread throughout many markets which were closely connected, in particular housing market, securities market and financial market, which resulted in the Global financial

⁴¹ Article 5(1) of the Regulation, op. cit. No. 34.

⁴² Article 1(5) of the Regulation, op. cit. No. 34.

⁴³ Articles 10, 15, 16, 17(3), 17(6), 18(3), 18(4), 19(3) and 19(4) of the Regulation, op. cit. No. 34.

⁴⁴ Recital 22 of the Regulation, op. cit. No. 34. See also the official websites of the EBA, available at: <https://www.eba.europa.eu/about-us>, last accessed 23 August 2018.

⁴⁵ CRAIG and BURCA, op. cit. No. 11, p. 795.

⁴⁶ See e.g. GORTON, Gary. *The maze of banking: history, theory, crisis*. New York: Oxford University Press, 2015, pp. 583-668, CASSIS, Youssef, GROSSMAN, Richard S and SCHENK, Catherine R. *The Oxford handbook of banking and financial history*. Oxford: Oxford University Press, (2016), pp. 439-460, and MAYNTZ, Renate (ed). *Crisis and Control: Institutional Change in Financial Market Regulation*. Frankfurt: Campus, 2012.

⁴⁷ See ARNER, Douglas W., BARBERIS, János, BUCKLEY, Ross P. 'The Evolution of Fintech: A New Post-Crisis Paradigm' (2016) Georgetown Journal of International Law, No. 2016-62, p. 8.

⁴⁸ See SHARMA, Shalendra D. *Global financial contagion: building a resilient world economy after the subprime crisis*. New York, NY: Cambridge University Press, 2014, pp. 102-189

crisis with the banking system in its centre. The Global financial crisis started in the summer of 2007 with its peak in September and October 2008 in the USA, whereas the crisis quickly spread throughout the rest of the world.⁴⁹ In history, it was characteristic that the financial crisis was accompanied by run on the banks when many people tried to withdraw their money because of the fear that the bank may cease to exist or function. Similarly, the Global financial crisis was accompanied by a run on the banks, but this time not the individuals but the companies were running on investment banks.⁵⁰

To put it simply, the housing market contained many risky subprime mortgages, which were provided to the households under favourable conditions. These mortgages were bundled with other assets, such as loans and commercial debts in the process called securitization.⁵¹ Through the process of securitization credit derivatives were created and traded in the derivatives market. It is worth noting that in this process many participants were engaged but the crucial contribution can be seen in the shadow banking system.⁵² This system, which had avoided regulation for a long period of time and thus was able to expand without proper monitoring, included non-depository banks, such as investment banks, hedge funds and special purpose vehicles.⁵³ The special purpose vehicles were often founded and sponsored by the traditional banks thereby providing the traditional banks with an access to leveraged investments.⁵⁴ Before the Global financial crisis erupted, the shadow banking system outgrew the traditional banking system in the USA.⁵⁵ The whole system lacked transparency, clear rules, accountability and appropriate oversight.⁵⁶

The Global financial crisis was primarily triggered by the collapse of the housing market caused by the rapidly growing number of mortgage defaults, which was exaggerated by the mortgage-backed securities that started to lose their value.⁵⁷ These events caused panic within the

⁴⁹ GORTON, Gary. *Misunderstanding financial crises: why we don't see them coming*. New York: Oxford University Press, 2012, pp. 182-199.

⁵⁰ *Ibid.*, pp. 4-28.

⁵¹ SCARDOVI, Claudio. *Digital transformation in financial services*. New York, NY: Springer Berlin Heidelberg, 2017, pp. 6-24.

⁵² RIXEN, Thomas. 'Why reregulation after the crisis is feeble: Shadow banking, offshore financial centers, and jurisdictional competition' (2013) *Regulation & Governance*, vol. 7, issue 4, pp. 435-459.

⁵³ *Ibid.*

⁵⁴ PLANTIN, Guillaume 'Shadow Banking and Bank Capital Regulation' (2015) *The Review of Financial Studies*, vol. 28, Issue 1, pp. 158-166.

⁵⁵ See POZSAR, Zoltan, *et al.* 'Shadow Banking' (2010), Federal Reserve Bank of New York, Staff Report No. 458. Revised February 2012, pp. 2-6, available at: https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr458.pdf, last accessed 23 August 2018.

⁵⁶ BARR, Michael S. 'The Financial Crisis and the Path of Reform' (2012) *Yale J. on Regulation* 29, No. 1, p. 92.

⁵⁷ BRUNNERMEIER, Markus K. 'Deciphering the Liquidity and Credit Crunch 2007–2008' (2009) *Journal of Economic Perspectives*, vol. 23, No. 1, pp. 92-94.

financial markets and resulted primarily in increased demand for additional financial collateral by the market participants, given that the value of the provided collateral (i.e. mortgages) was dropping down. Nevertheless, the market participants were not willing to provide such collateral or did not have the necessary resources, and thus a liquidity crunch followed.⁵⁸ As a consequence, the governments, central banks and other participants were forced to step in and bail out failing banks and other institutions and support the market by financial injections.⁵⁹ The interconnectedness of the global financial markets contributed to the spread of the financial crisis throughout the world.

As regards the consequences of the Global financial crisis, it is considered to be the biggest financial crisis since the Great Depression of 1929.⁶⁰ Lehman Brothers collapsed in September 2008⁶¹, while many other institutions had to be rescued, including investments banks such as Merrill Lynch and Bear Stearns and mortgage loan companies Fannie May and Freddie Mac in the USA.⁶² At the beginning of the spread of the financial crisis in the EU, the main victims that had to be rescued were commercial banks in the United Kingdom, Germany and Ireland due to their investment involvement in various American securities.⁶³ However, this brought about a dramatic squeeze on the real economy in relation to the necessary write offs of certain assets by the banks.⁶⁴ Therefore, the whole economic activity in the EU weakened and unemployment rose in countries directly hit by the financial crisis while these consequences quickly spread to another countries.⁶⁵ Moreover, the financial crisis in the EU was not limited only to banks that needed to be rescued but it had deep impacts on the EU governments which had serious problems with financing of their sovereign debt.⁶⁶ As a result, the European Financial Stability Facility was established and entrusted with the authority to lend up to EUR 440 billion to the Member States that were experiencing financial difficulties.⁶⁷ This system was

⁵⁸ *Ibid*, pp. 85-87.

⁵⁹ BARR, op. cit. No. 56, p. 92.

⁶⁰ BENCZUR, Peter, *et al.* 'Evaluating the effectiveness of the new EU bank regulatory framework: A farewell to bail-out?' (2017) *Journal of Financial Stability*, vol. 33, pp. 207-223.

⁶¹ CHALMERS, Damian, DAVIES, Gareth and MONTI, Giorgio. *European Union law: text and materials*. 3rd edition. Cambridge, United Kingdom: Cambridge University Press, 2014, Chalmers, p. 47

⁶² AVGOULEAS, Emiliós. 'The Global Financial Crisis and the Disclosure Paradigm in European Financial Regulation: The Case for Reform' (2009) *European Company and Financial Law Review*, vol. 6, No. 4, p. 25.

⁶³ See 'Monetary Union, Fiscal Crisis and the Preemption of Democracy' (2011), SCHARPF, Fritz W., MPIfG Discussion Paper 11/11, available at: http://www.mpifg.de/pu/mpifg_dp/dp11-11.pdf, last accessed 25 August 2018. The conformity with the relevant provisions of the TFEU regarding prohibited state aids was questioned but it was ultimately found to be within the boundaries of the EU law. For details see e.g. CHALMERS, DAVIES and MONTI, op. cit. No. 61, pp. 1082-1086

⁶⁴ *Monetary Union, Fiscal Crisis and the Preemption of Democracy*, op. cit. No. 63, p. 25

⁶⁵ *Ibid*, pp. 25-26.

⁶⁶ CHALMERS, DAVIES and MONTI, op. cit. No. 61, p. 48.

⁶⁷ *Ibid*, p. 48.

subsequently replaced by the European Stability Mechanism.⁶⁸ From 2010 to 2013, some sort of financial assistance was provided to Ireland, Portugal, Greece, Spain and Cyprus.⁶⁹

Legislators in the USA reacted to the Global financial crisis by adoption of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, which comprehensively modified the regulation of the financial institutions in the USA and, *inter alia*, prohibited proprietary trading carried out by the banks.⁷⁰ The changes concerning the banking system were also needed in the EU.

2.1.3. The aftermath of the Global financial crisis and the subsequent regulation

In the aftermath of the Global financial crisis, it became apparent that the regulation of the banking sector was insufficient and could not be left to the banks to regulate themselves.⁷¹ The provided financial assistance to the individual Member States was not sufficient to solve all the problems brought by the Global financial crisis, and thus it was necessary to supplement it with regulation of the financial system.⁷²

First of the major regulatory changes had in its sight remedy of economic governance weakness by giving increased oversight over national economic policies.⁷³ These measures were implemented in 2011 and include so-called “*six-pack*” measures⁷⁴ composed of five regulations⁷⁵

⁶⁸ CRAIG and BÚRCA, op. cit. No. 11, p. 738.

⁶⁹ CHALMERS, DAVIES and MONTI, op. cit. No. 61, p. 714.

⁷⁰ INDER, Jens-Hinrich. ‘Ring-Fencing: An Integrated Approach with Many Unknowns’ (2015) European Business Organization Law Review, vol. 16, issue 1, pp. 98-114.

⁷¹ BARR, op. cit. No. 56, p. 92.

⁷² CRAIG and BÚRCA, op. cit. 11, p. 739.

⁷³ See SMITS, René. ‘The Crisis Response in Europe’s Economic and Monetary Union: Overview of Legal Developments’ (2015) Fordham International Law Journal, vol. 38, issue 4, pp. 1144 and CRAIG and BÚRCA, op. cit. No. 11, p. 739

⁷⁴ *Ibid.* The regulations and directives were adopted pursuant to Articles 121(6), 126(14) and 136 of the TFEU.

⁷⁵ Regulation (EU) No. 1173/2011 of the European Parliament and of the Council of 16 November 2011 on the effective enforcement of budgetary surveillance in the euro area [2011] L 306/1 (23 November 2011), Regulation (EU) No. 1174/2011 of the European Parliament and of the Council of 16 November 2011 on enforcement measures to correct excessive macroeconomic imbalances in the euro area [2011] OJ L 306/8 (23 November 2011), Regulation (EU) No. 1175/2011 of the European Parliament and of the Council of 16 November 2011 amending Council Regulation (EC) No. 1466/97 on the strengthening of the surveillance of budgetary positions and the surveillance and coordination of economic policies [2011] OJ L 306/12 (23 November 2011), Regulation (EU) No. 1176/2011 of the European Parliament and of the Council of 16 November 2011 on the prevention and correction of macroeconomic imbalances [2011] OJ L 306/8 (23 November 2011) and Council Regulation (EU) No. 1177/2011 of 8 November 2011 amending Regulation (EC) No. 1467/97 on speeding up and clarifying the implementation of the excessive deficit procedure [2011] OJ L 306/33 (23 November 2011).

and one directive⁷⁶, which were subsequently supplemented by the “*two-pack*” measures in 2013⁷⁷. The common objective of these measures can be seen in strengthening budgetary oversight, enhancing compliance system with reporting duties together with the necessity of independent verification.⁷⁸

Due to the fact that insufficient regulation of the banking system was one of the major causes of the Global financial system, it was necessary to revise the whole framework relating to regulation of banks. Changes to the banking system and regulation thereof were profound and the major changes can be divided into three parts: (i) measures relating to capital requirements, (ii) modified rules for bank resolution and recovery and (iii) regulation of financial instruments.⁷⁹ Even though the measures closely relate to banking system, they also address financial market in general, shadow banking and insurance sector.⁸⁰

The foundation of the first set of measures can be seen in Basel III rules that were revised in 2017.⁸¹ These rules represent the outcome of global discussion regarding necessary changes to the banking system with regard to global capital standards prepared by the Basel Committee on Banking Supervisors with the aim of preventing similar crisis in the future.⁸² As a result, the first regulation in the field of banking regulation⁸³ together with the CRD IV directive were adopted. The rationale behind the adoption of one of the measures in the form of regulation was to ensure direct applicability with uniform application throughout the Member States without the possibility of the particular Member States for gold plating and similar distortion by the Member States.⁸⁴ In general, these two measures stipulate certain prudential requirements with a view to

⁷⁶ Council Directive 2011/85/EU of 8 November 2011 on requirements for budgetary frameworks of the Member States [2011] OJ L 306/41 (23 November 2011)

⁷⁷ Regulation (EU) No. 472/2013 of the European Parliament and of the Council of 21 May 2013 on the strengthening of economic and budgetary surveillance of Member States in the euro area experiencing or threatened with serious difficulties with respect to their financial stability [2013] OJ L 140/1 (27 May 2013) and Regulation (EU) No. 473/2013 of the European Parliament and of the Council of 21 May 2013 on common provisions for monitoring and assessing draft budgetary plans and ensuring the correction of excessive deficit of the Member States in the euro area [2013] OJ L 140/11 (27 May 2013).

⁷⁸ CRAIG and BÚRCA, op. cit. No. 11, p. 740. For detailed analysis please see SMITS, op. cit. No. 73.

⁷⁹ The detailed overview of the measures that have been adopted in connection with the Global financial crisis can be seen in the Economic Review of the Financial Regulation Agenda, available at: http://ec.europa.eu/internal_market/finances/docs/general/20140515-erfra-working-document_en.pdf, last accessed 25 August 2018.

⁸⁰ BENCZUR, *et al.*, op. cit. No. 60, p. 208.

⁸¹ Basel Committee on Banking Supervision, Bank for International Settlements ‘Basel III: Finalising post-crisis reforms’ (December 2017), available at: <https://www.bis.org/bcbs/publ/d424.pdf>, last accessed 20 August 2018.

⁸² BARR, op. cit. No. 56, pp. 114-117.

⁸³ Represented by the CRR. See also KUDRNA, Zdenek and RIEKMANN, Sonja Puntischer ‘Harmonizing national options and discretions in the EU banking regulation’ (2018) Journal of Economic Policy Reform, vol. 21, No. 2, p. 147.

⁸⁴ Recital 12 of the CRR. As regards “*gold plating*”, for details see e.g. KRÁL, Richard, SCHEU, Harald Christian, KULDA, Miloš, MÁDR, Petr, MATYSOVÁ, Monika, NAVRÁTIL, Petr and VONDRÁČKOVÁ,

ensure solvency of financial institutions, while the measures contain various other provisions such as provisions regarding remuneration policies.⁸⁵ As regards the prudential requirements, the CRD IV and the CRR set out quality and quantity of the capital that banks and other relevant institutions must retain in order to handle unexpected turns. It is important to note that the CRR and the CRD IV are currently under revision and new Capital Requirements Regulation and Capital Requirements Directive are being prepared by the European Commission.⁸⁶

Closely related to the first set of measures are the modified rules for bank resolution and recovery that were adopted in 2014. The updated rules are composed of the Bank Recovery and Resolution Directive together with the Single Resolution Mechanism Regulation. BRRD stipulates certain rules and mechanisms for banks and other institutions which are failing or likely to fail in order to prevent systemic damages to the internal market.⁸⁷ SRMR Regulation established the Single Resolution Mechanism (SRM) for the Member States participating in the euro zone that basically applies the mechanism created under the BRRD to the Banking Union, which will be described below.⁸⁸ The crucial decision-making role in SRM is conferred on the Single Resolution Board⁸⁹ and the possible resolution shall be financed through the Single Resolution Fund.⁹⁰

One of the steps taken by the EU after the Global financial crisis was the establishment of the Banking Union with the purpose of securing the proper function of the euro area.⁹¹ The Banking Union shall be based upon the Single Rulebook and it shall consist of three main pillars: surveillance, resolution and deposit guarantee.⁹² As regards the Single Rulebook, the main aim should be to “*ensure the consistent application of the regulatory banking framework across the EU*”⁹³. The Single Rulebook is also composed of three parts: measures relating to capital requirements, i.e. the CRR and the CRD IV, rules for bank resolution and recovery included in

Aneta. *Zbytečně zatěžující transpozice - neodůvodněný gold-plating směrnic EU v České republice*. Praha: Univerzita Karlova v Praze, Právnická fakulta, 2014, pp. 5-14.

⁸⁵ See e.g. Recitals 7, 34 and 62 of the CRR.

⁸⁶ The planned actions regarding the CRD IV and the CRR and amendments thereof are available at the official websites of the European Commission. Details regarding the CRD V, available at: <https://ec.europa.eu/info/node/6089>, last accessed 23 August 2018 and details regarding the CRR II, available at: <https://ec.europa.eu/info/node/6104>, last accessed 23 August 2018.

⁸⁷ See Recitals 1-3 of the BRRD.

⁸⁸ Article 5 of the SRMR Regulation.

⁸⁹ Articles 42–55 of the SRMR Regulation.

⁹⁰ TUOMINEN, op. cit. No. 16, p. 1369.

⁹¹ *Ibid*, p. 1368.

⁹² SMITS, op. cit. No. 73, pp. 1172-1179.

⁹³ See the official websites of the EBA, ‘Interactive Single Rulebook’, available at: http://www.eba.europa.eu/regulation-and-policy/single-rulebook/interactive-single-rulebook/-/interactive-single-rulebook/main_documents.jsessionid=5B52C6B6B7DB0EFBFB8D484A26B9543, last accessed 25 August 2018.

the BRRD and the Deposit Guarantee Schemes Directive⁹⁴ focusing on harmonization of national deposit guarantee schemes.⁹⁵ The first pillar of the Banking Union is the *Single Supervisory Mechanism* consisting of the ECB and the national supervisory authorities, whereas the ECB has the leading role as the body entrusted with supervisory powers over the significant European banks.⁹⁶ The above-mentioned SRM for banks forms the second pillar. Nevertheless, the proposed Banking Union has not been properly formed due to the fact that the intended *European Deposit Insurance Scheme* proposed by the European Commission has not yet been adopted.⁹⁷

Finally, certain measures that should strengthen the transparency and enhance the stability and functioning of the internal market have been adopted in the wake of the Global financial crisis, whereas these measures form the last part of this chapter dedicated to the regulation of financial instruments. As was mentioned in part 2.1.2 of this thesis, market with derivatives contributed to the development and spread of the Global financial crisis. One of these derivatives were the over-the-counter (OTC) derivatives, which are not traded on the regulated markets, and thus OTC derivatives lack the transparency.⁹⁸ As a result, the EMIR Regulation was adopted to tackle these problems with OTC derivatives. It was also necessary to revise the regulations relating to investment services and financial markets with derivatives traded on regulated markets. However, preparation and negotiation of these documents took many years, and therefore the relevant measures came into force only recently. These measures include MiFID II Directive accompanied by MiFIR Regulation, whereas the last transposition deadline for MiFID II Directive lapsed only recently, i.e. on 3 January 2018.⁹⁹

The provided analysis supports the claim stated at the beginning of the chapter that the banks are heavily regulated, while it was pointed out that the regulation of the banking system has been tightened and strengthened in aftermath of the Global financial crisis. Many different measures have been adopted both at a national level and the EU level, for example in the United Kingdom more than 80 regulations and rules to the domestic market have been enacted in the

⁹⁴ Directive 2014/49/EU of the European Parliament and of the Council of 16 April 2014 on deposit guarantee schemes (recast) [2014] OJ L 173/149 (12 June 2014).

⁹⁵ *Ibid*, Article 1. See also TUOMINEN, op. cit. No. 16, p. 1368.

⁹⁶ See the Council Regulation, op. cit. No. 32. For details regarding the SSM please see the official websites of the European Central Bank, available at: <https://www.bankingsupervision.europa.eu/about/thessm/html/index.en.html>, last accessed 25 August 2018.

⁹⁷ See Proposal for a regulation of the European Parliament and of the Council amending Regulation (EU) 806/2014 in order to establish a European Deposit Insurance Scheme.

⁹⁸ Article 2(7) of the EMIR Regulation read in conjunction with Recital 4 thereof.

⁹⁹ See Article 93 of the MiFID II Directive and the MiFIR Regulation.

aftermath of the Global financial crisis.¹⁰⁰ It is also evident that there is the tendency to of the European Commission to adopt measures in the form of regulations in order to prevent insufficient and inconsistent transposition of these measures within the Member States. The Global financial crisis had impacts on banks and some of these institutions either collapsed or had to be rescued by governments. The system of the banks was shaken up to its core and the public trust in institutions such as banks has been severely damaged.¹⁰¹ It can be hard for the wide public to grasp that none of the senior Wall Street executives who were in charge of the banks and other institutions, and thus can be seen as the main culprits of the Global financial crisis, were held accountable.¹⁰² Moreover, it took many years before the banks paid any fines in relation to the Global financial crisis¹⁰³, whereas in the public eyes the costs of the Global financial crisis were passed on the taxpayers through governmental bail outs. Besides the diminished trust of the public in banks and tightened oversight by the regulators, these institutions have to face new challenges coming along with increased competition by companies that put in practice novel technologies.

Therefore, the following part of this thesis will provide a definition of these Fintech companies in the context of the financial system and it will draw a comparison between the regulation of the banking system and Fintech sector. The overview of these two sectors is crucial for a proper assessment of the changes coming along with the PSD2.

2.2. Fintech Industry and how has it evolved

First of all, the basic definition of the Fintech will be provided together with the main fields in which the Fintech companies operate. Similarly as the chapter regarding the banking, the analysis will focus on the effects caused by the Global financial crisis (2.2.1) and the post-crisis development which continues up to the current date (2.2.2). Finally, a basic overview of the regulatory framework of the Fintech industry will be given together with the comparison between the regulation of the banking and the Fintech industry (2.2.3).

¹⁰⁰ See TEIGLAND, Robin, SIRI, Shahryar, LARSSON, Anthony, MORENO, Alejandro Puertas, BOGUSZ, Claire Ingram. *The Rise and Development of FinTech: Accounts of Disruption from Sweden and Beyond*. London, Routledge, 2018, p. 4.

¹⁰¹ See CHIU, Iris H-Y. 'A new era in fintech payment innovations? A perspective from the institutions and regulation of payment systems' (2017) *Law, Innovation and Technology*, vol. 9, No. 2, pp. 194.

¹⁰² See e.g. 'Who was convicted because of the global financial crisis?', *The Financial Times*, 2017, available at: <https://www.ft.com/content/de173cc6-7c79-11e7-ab01-a13271d1ee9c>, last accessed 25 August 2018.

¹⁰³ See e.g. 'How banks paid for crisis-era misdeeds', *The Financial Times*, 2017, available at: <https://www.ft.com/content/150d2a7a-7869-11e7-a3e8-60495fe6ca71>, last accessed 25 August 2018.

Modern technologies have become part of our everyday lives and these technologies make many processes easier and faster than ever. The modern technologies have been developing on an unprecedented scale and it is definitely hard to keep up with the pace of the developments. Even more challenging is the task for regulators who have to ensure that attention is given to different stakes of the parties and a proper regulation is put in place. Even though the modern technologies bring us many benefits, it is necessary to keep in mind that these technologies also bring about many potential threats, such as diminished protection of consumers, cyber security issues and high volatility of new crypto-currencies.

The field of financial services has not been spared of the proliferation of the modern technologies throughout various segments. The dictionary definition submits that Fintech means “*computer programs and other technology used to support or enable banking and financial services*”¹⁰⁴. The more precise definition was provided by the Financial Stability Board which sees the Fintech as “*technologically enabled innovation in financial services that could result in new business models, applications, processes or products with an associated material effect on financial markets and institutions and the provision of financial services*”¹⁰⁵.

The Fintech companies are not only start-up companies but some of them are already well-established companies within the global markets. Accordingly, it is possible to receive and send payments on the Internet with only a few clicks by the provider of services PayPal.¹⁰⁶ When a person decides that he needs funds to finance the development of his house he does not need to go to a bank, but he can decide to raise a capital through a crowd funding and peer-to-peer lending. Another example can be seen in innovative companies offering financial services consisting of management of various bank accounts in one place and providing an overview of personal finances with a complementary advice regarding possible savings.¹⁰⁷

The provided examples represent only a few of the Fintech companies that are trying to penetrate the market with financial services by providing services that are in a certain way novel to the market and distinctive from the services currently offered by well-established institutions, such as banks. Given the prevailing services that these Fintech companies offer, they can be

¹⁰⁴ ‘Definition of Fintech’, Oxford Dictionaries, Oxford University, available at: <https://en.oxforddictionaries.com/definition/fintech>, last accessed 23 August 2018.

¹⁰⁵ Monitoring of FinTech, Financial Stability Board, available at: <http://www.fsb.org/what-we-do/policy-development/additional-policy-areas/monitoring-of-FinTech/>, last accessed 23 August 2018.

¹⁰⁶ The official websites of the company PayPal, available at: <https://www.paypal.com/uk/webapps/mpp/about>, last accessed 23 August 2018.

¹⁰⁷ These services are also offered by one of the Czech companies, i.e. by the company Spendee. See the official websites of the company Spendee, available at: <https://www.spendee.com/about>, last accessed 23 August 2018. The last example will probably fall under the definition of the account information service provider within the meaning of Article 4(19) of the PSD2.

distributed into five major areas: (i) finance and investment, (ii) internal operations and risk management, (iii) payments and infrastructure, (iv) data security and monetization, and (v) customer interface.¹⁰⁸ Given that the Fintech companies did not appear out of blue, but some of them have gradually developed over the time, it is necessary to provide a brief historic overview.

2.2.1. The evolution of Fintech and the consequences of the Global financial crisis

The origin of the word Fintech can be traced back to the early 1990s when this word was used by Citigroup (then under its business name Citicorp) in their Financial Services Technology Consortium, whose aim was to promote technological innovation and cooperation with outside companies.¹⁰⁹

The development in the sector of financial technologies is not entirely new, but it has changed which companies offer such novel services. It is worth focusing on the era beginning in 1950s and 1960s when the financial industry began its transition from an analogue to a digital industry.¹¹⁰ One of the companies that could be considered as a first Fintech company is the company Bloomberg that came up with a software called Bloomberg Terminal developed for the professionals in the financial services sector that provides real-time market data.¹¹¹

The important milestones came with the development of online banking, new IT developments in internal system of banks and the spread of the usage of the World Wide Web and the Internet.¹¹² These developments connected with digitalization brought about the changes in the functioning of the financial services by amended environment and the way banks provided their services. Nevertheless, it is necessary to emphasize that most of the changes were coming from the internal needs of the banks to provide better services to customers without bigger threats from other innovative companies. The banks themselves tried to innovate their services given that they had the appropriate funds to develop and improve their services without bigger disruptive forces such as Fintech companies.

Many authors argue that the turning point for the surge of the Fintech companies and expansion of the Fintech industry can be seen in the Global financial crisis and the events that

¹⁰⁸ See ARNER, BARBERIS and BUCKLEY, op. cit. No. 47, p. 1281-1283.

¹⁰⁹ See WALKER, George. 'Financial Technology Law - A New Beginning and a New Future' (2017) *The International Lawyer*, vol. 50, issue 1, pp. 137-139 and ARNER, BARBERIS and BUCKLEY, op. cit. No. 47, p. 1272-1274.

¹¹⁰ ARNER, BARBERIS and BUCKLEY, op. cit. No. 47, pp. 1279-1283.

¹¹¹ *Ibid.*

¹¹² *Ibid.*

followed.¹¹³ In the years that followed the Global financial crisis, the position of the banks in the market of financial services was disrupted. As was already established, the banks found themselves in a situation in which they had to fight for their survival while some of them perceived as “*too big to fail*” had to be rescued by the governments.¹¹⁴ The customers of the banks changed their perception of the banks as stable institutions and the position of the consumers was threatened by the Global financial crisis.¹¹⁵ The regulators turned their attention towards the banks as they tried to build a more resilient and stable environment for the financial services. Accordingly, the oversight of the banks was strengthened.

Even though it may be argued that the aforesaid events connected with the Global financial crisis were not the most crucial ones in the development and the surge of the Fintech companies, they definitely contributed to the improvement of the position and competitiveness of the Fintech industry compared to the banking system and helped the Fintech industry to gain more trust from the wide public.¹¹⁶ However, the whole economic was affected by the Global financial crisis, and thus the development of the Fintech industry was affected. Consequently, the following part will focus on the development of the Fintech industry after the Global financial crisis and the main forces driving the Fintech industry will be identified.

2.2.2. Medialization of the Fintech Industry and the contemporary situation

Teigland, Siri, Larsson, Moreno and Bogusz provide four forces currently driving changes in financial services in Sweden, which can be generalized and employed in this thesis in connection with the provided analysis.¹¹⁷ These forces include: regulations, cognition: legitimacy and changing believes, new norms enabled by new technologies and a view of the actors.¹¹⁸

The first force driving the change was already mentioned in connection with banking regulation. It has been already demonstrated that banks have to comply with many different regulations. The following part regarding the regulation of the Fintech industry will present that

¹¹³ See e.g. ROMĂNOVA, Inna, GRIMA, Simon, SPITERI, Jonathan, KUDINSKA, Marina. ‘The Payment Services Directive II and Competitiveness: The Perspective of European Fintech Companies’ (2018) *European Research Studies Journal*, vol. XXI, issue 2, pp. 3-22, HARASIM, Janina, KLIMONTOWICZ, Monika. ‘Regulations as a tool to increase consumer protection on the European retail payment market’ (2018) *Journal of Economics & Management*, vol. 31, pp. 50-73, MASCHEK, Wolfgang A. ‘EU Regulatory and Supervisory Trends for FinTech Operators in Europe - A Policy Perspective (Including a View on Brexit)’ (2016) *FinTech Law Report*, vol. 19, No. 4, pp. 1-10 and ARNER, BARBERIS and BUCKLEY, op. cit. No. 47, pp. 1272-1318.

¹¹⁴ See MAGNUSON, William J. ‘Regulating Fintech’ (2018) *Vanderbilt Law Review*, vol. 71, pp. 1168-1225.

¹¹⁵ See MASCHEK, op. cit. No. 113, pp. 1-3.

¹¹⁶ See ARNER, BARBERIS and BUCKLEY, op. cit. No. 47, pp. 1272-1279.

¹¹⁷ See TEIGLAND, SIRI, LARSSON, MORENO and BOGUSZ, op. cit. No. 100, p. 18.

¹¹⁸ *Ibid.*

the regulation of the Fintech companies is not as stringent as banks and other relating financial institutions. Moreover, it will be argued that the Fintech companies are provided with specific possibilities to avoid the regulation for a limited period of time.

Under the second driving force, we can find the perception of the wide public of the relevant actors in the financial services system. In places such as United Kingdom, California, New York, Singapore, Germany, Australia and Hong Kong, which are considered to be the leading Fintech centres, the working environment for the Fintech companies is friendly and open towards innovative solutions.¹¹⁹

The third driving force can be seen in the technologies and new standard, which are in high demand in the financial markets, that are produced by the Fintech companies. These technologies include robo-advisors capable of replacing humans in making certain financial decision currently done by the banks, big data analytics that may provide banks and other institutions with relevant information regarding their customers and blockchain technology that may potentially change the way public registers works.¹²⁰

Finally, the ways and means through which the investors invest money have changed and these changes have impacts on the Fintech industry. This is accompanied by the expansion of the usage of the Internet which allows wide public to look for investments and it enables the institutional investors to easily monitor the current investment opportunities.¹²¹

The four above-mentioned driving forces together with the events connected with the Global financial crisis have contributed to the constant growth of the Financial industry. The term “*Fintech*” became a buzzword approximately in 2014, when the relevant authorities, market participants, consumers and academics started to closely monitor the Fintech industry.¹²² The amount of investments in the Fintech industry is growing with the amount of USD 41.7 billion already invested in the first half of 2018 with the prediction of the additional growth of the market size.¹²³ Nevertheless, when we compare this figure with the reported revenue of the

¹¹⁹ See WALKER, op. cit. No. 109, pp. 144-147.

¹²⁰ See TEIGLAND, SIRI, LARSSON, MORENO and BOGUSZ, op. cit. No. 100, pp. 9-11. As regards the public registers, Sweden is currently testing blockchain land registers that may make transfers of real estate easier. See e.g. ‘A Pioneer in Real Estate Blockchain Emerges in Europe’ (6 March 2018), The Wall Street Journal, available at: <https://www.wsj.com/articles/a-pioneer-in-real-estate-blockchain-emerges-in-europe-1520337601>, last accessed 25 August 2018.

¹²¹ See WALKER, op. cit. No. 109, pp. 139-144.

¹²² See ARNER, BARBERIS and BUCKLEY, op. cit. No. 47, pp. 1272-1273. This also correlates with the frequency of the word “*Fintech*” being looked up in the Internet. See Google Trends regarding the “*Fintech*”, available at: <https://trends.google.com/trends/explore?date=all&q=Fintech>, last accessed 25 August 2018.

¹²³ See e.g. ‘2018 is already a record year for global FinTech investment’ (11 July 2018), Fintech Global, available at: <http://fintech.global/2018-is-already-a-record-year-for-global-fintech-investment/>, last accessed 25 August 2018.

biggest European bank HSBC for 2017, which amounted to USD 51.4 billion with the total assets worth USD 2,522 billion,¹²⁴ it becomes apparent that the size of the banks is still considerably bigger.¹²⁵

While it may be true that the Fintech industry offers advantages for the wide public, there are still concerns regarding the disadvantages and threats that these Fintech companies may bring along to the whole financial market.¹²⁶ These potential disadvantages cover, *inter alia*, regulatory challenges, threats to financial stability and financial integrity, exchange controls and capital flow management and consumer protection.¹²⁷ Given that these potential disadvantages are closely related to the regulation of the Fintech industry, the following part of this thesis will take a closer look at the current regulatory and supervisory issues connected with Fintech industry.

2.2.3. Regulation of the Fintech Industry

This part will focus on regulation at the level of respective Member States and at the EU level. At the same time, a number of remarks regarding other countries will be made in order to create an overview of the regulation in the majority of the Fintech industry.

As a general rule, the Fintech companies are not exempted from the legal regime of the Member States or from the laws of the EU. Consequently, the Fintech companies conducting their business activities in the EU will be assessed based on their activities, and subsequently relevant supervision or authorisation will be applied or required.¹²⁸ Accordingly, the Fintech companies can be subject to EU regulatory regime, national regulation or no regulation at all provided that the relevant area is not regulated by national or EU rules.¹²⁹ In other words, even the Fintech companies will be regulated by the respective EU and national rules, which apply to other companies in the same sector. The easiest way how to illustrate the possible situations is to present a few examples that will demonstrate how these Fintech companies can be regulated.

¹²⁴ See 'The Annual Results', HSBC Holdings plc, available at: <https://www.hsbc.com/investor-relations/group-results-and-reporting/group-reporting-archive/annual-results-2017-quick-read>, last accessed 25 August 2018.

¹²⁵ Please note that the figures should serve only for simplified illustration of the current situation. The author of this thesis is aware of the fact that other indicators and figures are relevant for the proper comparison, but the purpose of this thesis is not to provide an economic overview of banking and Fintech industry.

¹²⁶ See WALKER, op cit. No. 109, pp. 137-215.

¹²⁷ See International Monetary Fund, 'Virtual Currencies and Beyond: Initial Considerations' (January 2016), Discussion Note, pp. 24-38, available at: <https://www.imf.org/external/pubs/ft/sdn/2016/sdn1603.pdf>, last accessed 25 August 2018.

¹²⁸ Communication from the Commission to the European Parliament, the Council, the European Central Bank, the European Economic and Social Committee and the Committee of the Regions: FinTech Action plan: For a more competitive and innovative European financial sector COM(2018) 109 final, p. 5.

¹²⁹ *Ibid.*

As a first illustration, regulation of the Fintech company Zonky, which provides a platform for peer-to-peer lending, will be presented.¹³⁰ Given that this company operates a platform through which people raise money and the amount of loans provided through this platform does not exceed a certain threshold, the company is registered with the Czech National Bank as a small payment institution.¹³¹ This regime provides the respective companies with certain exclusions, and therefore they are not as strictly regulated as banks.¹³²

The second example can be the Fintech company Twisto that provides its customers with a possibility to pay for their expenses (especially their invoices), while the customers must repay the corresponding amounts at some specified time in the future, i.e. the company offers services consisting in some form of "*deferred payments*".¹³³ Considering the nature of the services provided by this company and the total sums that are being transferred, the company is regulated as a payment institution.¹³⁴

The last example will represent a possibility to operate as a bank. Therefore, if the relevant Fintech company wishes to conduct banking activities in the Czech Republic as a bank, then they have to obtain a banking licence from the Czech National Bank pursuant to Act on Banks. Nevertheless, banking activities represent specific activities within the financial market and not every business activity of the Fintech companies would classify as a banking activity or other regulated activity by the national or EU rules, as was presented above. As a result, part of the Fintech industry is not regulated at all.¹³⁵

The European Commission became aware of the potential threats that an unregulated or only partially regulated industry can possess to the internal market and therefore they conducted the *Public Consultation on FinTech: a more competitive and innovative European financial sector* in 2017.¹³⁶ It became apparent from the public consultation that there is currently no

¹³⁰ See the official websites of the company Zonky s.r.o., available at: <https://zonky.cz/>, last accessed 20 August 2018.

¹³¹ For details regarding the small payment institutions see parts 3.2.2 (iii.) and 3.2.4 of this thesis. The information regarding authorisation of the company Zonky were retrieved from the official websites of the Czech National Bank, available at: https://apl.cnb.cz/apljerrsdad/JERRS.WEB07.INTRO_PAGE?p_lang=en, last accessed 20 August 2018.

¹³² *Ibid.*

¹³³ See the official websites of the company Twisto payments a.s., available at: <https://www.twisto.cz/>, last accessed 20 August 2018.

¹³⁴ The company Twisto has obtained the required permission. For details regarding payment institutions and definition thereof please see part 3.2.2 (i.) of this thesis. The information regarding permission of the company Twisto were retrieved from the official websites of the Czech National Bank, available at: https://apl.cnb.cz/apljerrsdad/JERRS.WEB07.INTRO_PAGE?p_lang=en, last accessed 20 August 2018.

¹³⁵ One of these examples can be account information service providers that were not regulated before adoption of the PSD2. For details regarding AISP see part 3.3.3 of this thesis.

¹³⁶ See European Commission, 'Consultation: Public consultation on FinTech: a more competitive and innovative European financial sector', available at: <https://ec.europa.eu/info/consultations/public-consultation-fintech->

consensus between the Member States and other stakeholders regarding broad regulatory action in the EU. However, certain potential issues were identified, namely cybersecurity, the use and control of data and money laundering.¹³⁷

As regards the control of data, this issue has been partially addressed by the GDPR that came into force on 25 May 2018 and which strengthens the data protection in the EU. Therefore, the Fintech companies have to adhere to the strengthened data protection and the respective rules regarding the data protection.

With the upswing of the crypto-currencies, issues connected with money laundering expanded to the area of these currencies. The basic framework preventing money laundering is given within the EU by the Directive (EU) 2015/849.¹³⁸ As one of the attempts to tackle these problems, European legislators decided to extend the scope of this Directive (EU) 2015/849 also to virtual currencies.¹³⁹ Subsequently, European legislators decided to adopt a new directive concerning anti-money laundering, which will include specific provisions regarding crypto-currencies.¹⁴⁰

The last of the identified issues regarding cybersecurity is partially addressed by the provisions of the PSD2 and therefore the explanation will be given further in this thesis.

The European Commission continued in its activities relating to the Fintech and prepared the *FinTech Action plan: For a more competitive and innovative European financial sector*.¹⁴¹ The pertaining issues can be seen in cybersecurity, cloud services and the use of data, while the European Commission extended these possible issues to speculative investments in crypto-assets.¹⁴² The European Commission endeavours to introduce proactive measures in order to ensure “*advances in technology for the benefit of the EU economy, citizens and industry, to foster a more competitive and innovative European financial sector, and to ensure the integrity*

[more-competitive-and-innovative-european-financial-sector_en](#), last accessed 25 August 2018.

¹³⁷ See European Commission, ‘Summary of contributions to the ‘Public Consultation on FinTech: a more competitive and innovative European financial sector’ (2017), pp. 3-4, available at: https://ec.europa.eu/info/sites/info/files/2017-fintech-summary-of-responses_en.pdf, last accessed 25 August 2018.

¹³⁸ Directive (EU) 2015/849 of the European Parliament and of the Council of 20 May 2015 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, amending Regulation (EU) No 648/2012 of the European Parliament and of the Council, and repealing Directive 2005/60/EC of the European Parliament and of the Council and Commission Directive 2006/70/EC [2015] OJ L 141/73 (5 June 2015).

¹³⁹ The Communication, op. cit. No. 128, p. 3.

¹⁴⁰ See Directive (EU) 2018/843 of the European Parliament and of the Council of 30 May 2018 amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, and amending Directives 2009/138/EC and 2013/36/EU [2018] OJ L 156/43 (19 June 2018). The Directive has to be implemented by the Member States by 10 January 2020.

¹⁴¹ The Communication, op. cit. No. 128.

¹⁴² *Ibid*, p. 6.

of the EU financial system”.¹⁴³ In order to do so, the European Commission proposed a regulation allowing crowdfunding platforms to operate cross border under a passporting regime.¹⁴⁴ Another advancements of the Fintech industry shall include measures for remote identification of bank customers by cross border use of electronic identification.¹⁴⁵

At the international level, the Fintech regulation is closely monitored by the Financial Stability Board which issued a report on the financial stability implications from FinTech. The report identified similar issues as the European Commission, in particular issues relating to consumer and investor protection, cloud computing, data protection and cyber risks while at the same time it concluded that there is currently no need for an extensive regulation of the Fintech industry.¹⁴⁶

Even until recently, the Fintech industry was not considered to be an important sector by some market participants, and, as a result, the Fintech companies did not have to adhere to various complex rules.¹⁴⁷ Consequently, the Fintech companies were able to take advantage of this situation and the Fintech industry grew in its size. One of these examples is China that has emerged as one of the leaders in the Fintech industry by providing heavy investments into new technological infrastructure.¹⁴⁸ Other countries, including the UK, Singapore and Australia, decided to set up regulatory sandboxes in which the Fintech companies could test their innovative technologies.¹⁴⁹ Particularly active in this field is the UK Financial Conduct Authority which sees the regulatory sandboxes as environments that allow Fintech companies to “*test innovative products services and business models in a live market environment, while ensuring that appropriate safeguards are in place*”.¹⁵⁰

The Fintech companies are quite often start-up companies which do not have the necessary expertise and funds to enter the financial market. Accordingly, the sandboxes were set up in order to provide the Fintech companies with safe environment that is advantageous for the Fintech companies. As it was observed by the FCA, the potential investors are reluctant to invest

¹⁴³ *Ibid*, pp. 17-18.

¹⁴⁴ Proposal for a Regulation of the European Parliament and of the Council on European Crowdfunding Service Providers (ECSP) for Business COM(2018) 113 final

¹⁴⁵ The Communication, op. cit. No. 128, p. 10

¹⁴⁶ See Financial Stability Board, ‘Financial Stability Implications from FinTech Supervisory and Regulatory Issues that Merit Authorities’ Attention’ (27 June 2017), pp. 6-32, available at: <http://www.fsb.org/wp-content/uploads/R270617.pdf>, last accessed 25 August 2018.

¹⁴⁷ See TEIGLAND, SIRI, LARSSON, MORENO and BOGUSZ, op. cit. No. 100, p. 4.

¹⁴⁸ See SCARDOVI, op. cit. No. 51, pp. 207-234.

¹⁴⁹ See e.g. TSAI, Chang-Hsien, PENG, Kuan-Jung. ‘The FinTech Revolution and Financial Regulation: The Case of Online Supply-Chain Financing’ (2017) Asian Journal of Law and Society, vol. 4, p. 127.

¹⁵⁰ See FCA, ‘Regulatory sandbox lessons learned report’ (October 2017), available at: <https://www.fca.org.uk/publication/research-and-data/regulatory-sandbox-lessons-learned-report.pdf>, last accessed 25 August 2018.

in the Fintech companies if they do not possess the required authorisation.¹⁵¹ According to the FCA, the regulatory sandbox enables the Fintech companies to address investors who see that they are taking steps towards the acquisition of the authorisation. At the same time, the FCA praises the opportunity to explore regulatory gaps and the possibility to provide their expertise to the Fintech companies.¹⁵² Given that the regulatory sandboxes have proven to be successful and beneficial even for the regulators, thirteen other Member States have established their version of the regulatory sandbox.¹⁵³

It follows from the previous lines that the regulators at the global level and also at the EU level are aware of the potential of the Fintech companies for the development of the market and the services provided to the customers. At the same time, the respective authorities recognize that these Fintech companies may cause problems and disruption to the global economy. However, it seems that there is currently no wide consensus concerning the necessity of a broad regulatory action. As a result, only piecemeal measures have been adopted at the EU level.

Given that ten years have lapsed since the Global financial crisis, regulators are not only focusing on how to prevent another crisis, but they are looking at ways which would support the future development of the market.¹⁵⁴ Their task is definitely a difficult one: they strive to grasp the rapid development of the modern technologies in order to adapt legal rules to the advancement of these technologies. While doing so, they have to keep in mind potential threats these technologies possess, and they also have to take into account different interests of the stakeholders. It is crucial that they put in place rules that do not hinder and create barriers for the development of these modern technologies and at the same time rules which protect the market and interests of the various stakeholders (such as consumers).

Some of the Members States understand the potential of the Fintech companies, and thus they do not stand idly by, but they have taken active steps that support the progress of the Fintech industry. One of these steps can be seen in formation of the regulatory sandboxes in which the Fintech companies can safely grow and evolve. These regulatory sandboxes provide national regulators with a unique opportunity to monitor the Fintech industry and adapt their policies and rules based on their monitoring.

According to *Cortet, Rijks and Nijland*, three main forces are changing the provisions of financial services by the banks: (i) changes in consumer behaviour which can be seen in

¹⁵¹ *Ibid.*, p. 6.

¹⁵² *Ibid.*

¹⁵³ *Ibid.* See also the Communication, op. cit. No. 128, pp. 8-9.

¹⁵⁴ See ARNER, BARBERIS and BUCKLEY, op. cit. No. 47, pp. 1293-1295.

expectations of the consumers that they will be provided with seamless and personalised shopping and payments, (ii) technology driven innovation that is particularly caused by the Fintech companies and (iii) European regulatory intervention.¹⁵⁵ Accordingly, the next chapter will be dedicated to the European regulatory changes and in particular it will focus on the Revised payment services directive. Due to the fact that the PSD2 primarily addresses provision of payment services, the implications for the Fintech industry should be particularly understood as the potential impacts of the PSD2 on the Fintech companies that offer or provide payment services.

¹⁵⁵ CORTET, Mounaim, RIJKS, Tom, NIJLAND, Shikko 'PSD2: The digital transformation accelerator for banks' (2016) *Journal of Payments Strategy & Systems*, vol. 10, No. 1, pp. 14-18.

3. Payment Services Directive(s) – the foundations and key changes

At the beginning of this chapter, the general overview of the payment system together with a brief explanation concerning the formation of EU rules governing the payment systems up to the present day will be given (3.1). The second part will introduce the original payment services directive with the main important provisions in view of the fact that certain provisions of the PSD remained or were (slightly) amended in the PSD2 (3.2). Finally, the last part will focus on the changes coming along with the adoption of the PSD2 (3.3).

3.1. The basic overview of the payment system under EU law

Given that the payment systems are at the core of this part, the basic definition of these payments will be provided. One of the definitions is that the payment systems can be understood as “*institutional arrangements that facilitate the transfer of funds from debtors (payors) to creditors (payees) in satisfaction of financial obligations*”.¹⁵⁶ These two institutional arrangements can be divided into two subcategories categories, i.e. retail and wholesale payments.¹⁵⁷ Retail payments can be defined as “*mass payments of small value per transaction*” while wholesale payments can be understood as “*payments of large individual values but of much smaller volumes*”.¹⁵⁸ The example of the former can be a payment between two consumers or a consumer and a retailer whereas the example of the latter can be a payment carried out between two banks or between two large companies.¹⁵⁹ Even though these two subcategories can be perceived as two distinctive systems, retail and wholesale payments are interconnected with each other, at least from an operational perspective.¹⁶⁰ The space of this thesis precludes detailed analysis of each aspect of these two subcategories, and thus the following text will focus mostly on the retail payments and how these payments will be affected by the revised payment services directive. Consequently, certain regulations concerning, for example, payment clearings and settlements will not be addressed.

As was already submitted in part 2.1.1 of this thesis, free movement of capital, which currently covers also free movement of payments, is one of the four freedoms that are crucial for the proper functioning of the internal market. Originally, free movement of capital and free

¹⁵⁶ AWREY, Dan, ZWIETEN, Kristin van. ‘The Shadow Payment System’ (2018) Journal of Corporation Law, vol. 43, issue 4, pp. 781-782.

¹⁵⁷ *Ibid.*

¹⁵⁸ JANCZUK-GORYWODA, Agnieszka. ‘Evolution of EU Retail Payments Law’ (2015) Tilburg Law School Legal Studies Research Paper Series No. 21/2015, p. 3.

¹⁵⁹ *Ibid.*

¹⁶⁰ See AWREY and ZWIETEN, op. cit. No. 156, p. 782.

movement of payments were contained in different articles of the Treaty establishing the European Economic Community and were perceived as different freedoms.¹⁶¹ However, that has changed with the Maastricht Treaty and nowadays free movement of capital and free movement of payments included in Article 63 of the TFEU are considered to be “*one freedom with two subcategories*”.¹⁶² *Lenaerts, Nuffel, Bray and Cambien* consider free movement of capital and payments to be a “*service freedom*”¹⁶³ given that the movement of financial values across the borders of Member States is closely connected with other freedoms.¹⁶⁴

As regards the development of the rules concerning payment system at the EU level, it took many years before any measures have been adopted. In the period lasting until 1997, the measures mostly consisted of recommendations and soft law with the intention of the regulators to persuade the market participants to co-operate.¹⁶⁵ The first important piece of legislation in this field was the Directive on cross-border credit transfer adopted in 1997.¹⁶⁶ The main aim of the directive was to lay down rules regarding transparency obligations, minimum standards and complaints and redress.¹⁶⁷ However, the scope of the directive was limited to the payments up to EUR 50.000¹⁶⁸ and the directive was only a minimum harmonization directive.¹⁶⁹

The turning point, which brought about further changes in the regulation of payment systems and payment services, can be seen in the introduction of the single currency (i.e. euro) in 1999.¹⁷⁰ The introduction of euro was followed by the Regulation on Cross-border Payments in Euro in 2001, which stipulated that the charges for cross-border and domestic electronic payments and transactions in euro shall be the same.¹⁷¹ Another example of the said shift from minimum harmonisation measures to maximum harmonisation measures is the adoption of the PSD in 2007. The PSD provided a comprehensive set of rules concerning payment services and

¹⁶¹ The free movement of capital was included in Article 67(1) of the TEC and the free movement of payments in Article 106(1) of the TEC. See also HAMULÁK, Ondrej. ‘Unveiling the overlooked freedom – the context of free movement of capital and payments in the EU law’ (2012) *International and Comparative Law Review*, vol. 12, No. 2, pp. 129-145. For details and analysis of a seminal case-law regarding free movement of payments see e.g. LOUIS, Jean-Victor. ‘Free Movement of Tourists and Freedom of Payments in the Community: The Luisi-Carbone Judgment’ (1984) *Common Market Law Review*, vol. 21, No.4, pp. 625-637.

¹⁶² See HAMULÁK, op. cit. No. 161, p. 133.

¹⁶³ See LENAERTS, Koenraad, NUFFEL, Piet Van, BRAY, Robert and CAMBIEN, Nathan. *European Union Law*. 3rd ed. London: Sweet & Maxwell, Thomson Reuters, 2011, pp. 285-292.

¹⁶⁴ See HAMULÁK, op. cit. No. 161, p. 144.

¹⁶⁵ See JANCZUK-GORYWODA, op. cit. No. 158, pp. 2-9.

¹⁶⁶ Directive 97/5/EC of the European Parliament and of the Council of 27 January 1997 on cross-border credit transfer [1997] OJ L 43 (14 February 1997)

¹⁶⁷ *Ibid*, Articles 3-10.

¹⁶⁸ *Ibid*, Article 1.

¹⁶⁹ See JANCZUK-GORYWODA, op. cit. No. 158, pp. 9-10.

¹⁷⁰ *Ibid*, pp. 10-11.

¹⁷¹ Article 3 of the Regulation (EC) No. 2560/2001 of the European Parliament and of the Council of 19 December 2001 on cross-border payments in euro [2001] OJ L 344 (28 December 2001).

detailed analysis of the PSD will be given further in this chapter. Therefore, we can see a gradual change from a minimum harmonization to a situation in which more measures either with a direct effect or a maximum harmonisation were adopted.

During the ensuing years, more regulations with direct effect and maximum harmonisation directives followed.¹⁷² A new regulation concerning cross-border payments was adopted in 2009¹⁷³ followed by a regulation that supported transition to the Single Euro Payments Area in 2012.¹⁷⁴ This process culminated in adoption of the PSD2 in 2015. However, there are other measures that have been adopted with the aim of further advancement of the payment system and relate to the PSD2, which will be briefly mentioned below.

The first measure that closely relates to the PSD2 is the Regulation on interchange fees for card-based payment transactions.¹⁷⁵ This regulation covers the card-based payment transactions that are carried out within the EU and the main aim is to impose limits on the interchange fee rates.¹⁷⁶ These interchange fee rates shall not be more than 0,2 % of the value of the transaction for any debit card transaction and more than 0,3 % of the value of the transaction for any credit card transaction.¹⁷⁷ As *Cortet, Rijks and Nijland* pointed out, the average fees in the EU in 2013 were 0.31 % for debit cards and 0.92 % for credit cards.¹⁷⁸, and thus we can notice that the regulation substantially reduces and unifies the relevant fees. The regulation is complemented by the PSD2 which prohibits any surcharges for the use of payment instruments and payment services regulated by the mentioned regulation or the SEPA regulation described above^{179 180}.

The following measures are connected with the payment accounts and information that have to accompany transfer of funds. The directive relating to the payment account focuses on, *inter alia*, possibility of EU citizens to open and maintain their bank accounts within any of the

¹⁷² *Janczuk-Gorywoda* even claims that the period from 2009 can be perceived as a period of uniformity. See JANCZUK-GORYWODA, op. cit. No. 158, pp. 20-24.

¹⁷³ Regulation (EC) No. 924/2009 of the European Parliament and of the Council of 16 September 2009 on cross-border payments in the Community and repealing Regulation (EC) No 2560/2001.

¹⁷⁴ Regulation (EU) No. 260/2012 of the European Parliament and of the Council of 14 March 2012 establishing technical and business requirements for credit transfers and direct debits in euro and amending Regulation (EC) No 924/2009 [2009] OJ L 94 (30 March 2012). For details regarding the development of the SEPA see WANDHÖFER, Ruth. *EU payments integration: the tale of SEPA, PSD and other milestones along the road*. New York: Palgrave Macmillan, 2010, pp. 28-76 and 142-186.

¹⁷⁵ Regulation (EU) 2015/751 of the European Parliament and of the Council of 29 April 2015 on interchange fees for card-based payment transactions [2015] OJ L 123/1 (19 May 2015).

¹⁷⁶ *Ibid*, Article 1 and Recitals 12-18.

¹⁷⁷ *Ibid*, Articles 3(1) and 4.

¹⁷⁸ CORTET, RIJKS and NIJLAND, op. cit. No. 155, p. 17.

¹⁷⁹ See the Regulation, op. cit. No. 171.

¹⁸⁰ See Article 62(4) of the PSD2 and Recitals 2 and 66 of the PSD2.

Member States and fees relating to the payment accounts.¹⁸¹ Further, the Regulation on information accompanying transfers of funds lays down certain obligations of the payment service providers in connection with transfer of funds which aims to prevent flows of illicit money. The regulation is closely connected with the directive regulating anti-money laundering.¹⁸² All of these measures concern in a certain way the provision of payment services and consequently relate to the PSD2.

The last set of measures relates to data protection and cybersecurity. As was already mentioned above, the GDPR comprehensively regulates processing of data within the EU. Further, the directive regarding network and information security¹⁸³ seeks to obtain a high common level of cybersecurity in the EU while one of the regulated entities are the credit institutions (i.e. banks), which are also subject to the PSD2. Therefore, also these measures complement the relevant provisions of the PSD2 and form the EU payments system.

To sum up, it is evident from the provided analysis that the payment system was originally not regulated at the EU level, but the approach gradually changed and nowadays we can notice a comprehensive set of rules regulating the payment system at the EU level, which mostly consists of regulations and directives with maximum harmonization. The provided list of measures at the EU level is not an exhaustive list but it should provide a basic summary of the development of the payment system and the measures that are connected with the payment system and the PSD2. Accordingly, the following lines will focus on the PSD and PSD2.

3.2. The original Payment Services Directive (PSD)

First of all, this part will focus on the reasons behind the adoption of the PSD (3.2.1). Secondly, the analysis of the main provisions of the PSD (in particular focusing on scope, exemptions from application and obligations of the payment services providers) will be provided (3.3.2). Thirdly, the significant cases handed down by the CJEU will be examined in view of the fact that some of them are relevant even after adoption of the PSD2 (3.3.3). The last part will critically assess the impacts of the PSD and provide the main reasons why the PSD2 was adopted (3.2.4). The main aim of this chapter is to form the basis for subsequent comparison between the PSD and the PSD2, which should reveal whether the changes coming along with adoption of the

¹⁸¹ Directive 2014/92/EU of the European Parliament and of the Council of 23 July 2014 on the comparability of fees related to payment accounts, payment account switching and access to payment accounts with basic features [2014] OJ L 257/214 (28 August 2014).

¹⁸² See the Directive, op. cit. No. 138 and the Directive, op. cit. No. 140.

¹⁸³ Directive (EU) 2016/1148 of the European Parliament and of the Council of 6 July 2016 concerning measures for a high common level of security of network and information systems across the Union [2016] OJ L 194/1 (19 July 2016).

PSD2 are capable of disruption of the banking system as we know it. Accordingly, only those provisions of the PSD that were either novel or are relevant for the subsequent comparison between the PSD and PSD2 are covered below.

3.2.1. Rationale behind adoption of the PSD

As was already described in chapter 3.1 above, the development of the payment system at the EU level was rather slow. Each of the Member States had its own distinctive rules and therefore the most prevalent was a piecemeal national regulation with many rules developed by the private entities from banking sector.¹⁸⁴ It was argued that the protection of consumers was inadequate with excessive fees imposed on consumers, the market needed more competition and rules for provision of services within the whole EU were required.¹⁸⁵ Accordingly, the PSD was adopted with the intention to tackle these issues. The main objectives, which the PSD tried to achieve, can be divided into four groups: (i) increased consumer protection and transparency, (ii) regulation of the different payment institutions, (iii) setting up common standards, and (iv) support of SEPA.¹⁸⁶ These objectives will be addressed in the following part which provides an analysis of the relevant provisions of the PSD.

3.2.2. Main provisions regarding payment services of the PSD

The PSD was adopted in the regime of full harmonisation which did not provide Member States with an option to fully derogate from the respective provisions of the PSD.¹⁸⁷ However, the Member States and other stakeholder were able to negotiate twenty-three exemptions included in the PSD, which allowed the Member States to derogate to a certain level from the provisions of the PSD.¹⁸⁸ The same principle of full compliance applied to the payment service providers with one exception. The exception under the PSD was a situation in which the payment service providers decided to grant more favourable terms to the payment service users.¹⁸⁹ Therefore, the permitted exceptions were only in favour of the users of the payment services. Member States were obliged to adapt the PSD to their respective national provisions by

¹⁸⁴ See VARDI, Noah. 'Regulation of Payments after the PSD: Is There Still a Role for Domestic Law?' in GIMIGLIANO, Gabriella. *Money, payment systems and the European Union: the regulatory challenges of governance*. Newcastle upon Tyne: Cambridge Scholars Publishing, 2016, p. 41.

¹⁸⁵ See MERCADO-KIERKEGAARD, Sylvia. 'Harmonising the regulatory regime for cross-border payment services' (2007) vol. 23, issue 2, pp. 177-187 and HARASIM and KLIMONTOWICZ, op. cit. No. 113, p. 61.

¹⁸⁶ *Ibid.*

¹⁸⁷ Article 86(1) of the PSD.

¹⁸⁸ See WANDHÖFER, op. cit. No. 174, pp. 128-132. It is important to point out that most of the derogations were connected with authorisation of payment institutions in view of the fact that these institutions were a new concept. Details regarding payment institutions are provided below.

¹⁸⁹ Article 86(3) of the PSD.

1 November 2009.¹⁹⁰ Apart from the Member States of the EU, the PSD was applied also in the rest of the countries of the EEA, i.e. Iceland, Liechtenstein and Norway.¹⁹¹

As already mentioned, the PSD supported development of the SEPA by laying down a comprehensive set of rules governing the payment services, and thus creating a legal framework that formed the basis for the SEPA.¹⁹² This can be seen as one of the crucial contributions to the development of the payment system at the EU level.

For reasons of clarity, the provisions of the PSD will be divided into five subsections: (i) the scope of the PSD, (ii) definition of the payment service providers under the PSD, (iii) authorisation as a payment institution, (iv) transparency rules and (v) rights and obligations of the payment service users.

(i.) The scope of the PSD

The application of the PSD was limited only to the payment services provided within the EU while both the payment service provider of the payer and the payee or the sole payment services provider had to be located within the EU.¹⁹³ Moreover, the applicability of the main provisions of the PSD concerning transparency rules and rights and obligations of the payment service users was limited only to the payment services made in euro or other currencies of the Member States outside of the euro area.¹⁹⁴ Contrary to the original proposal of the PSD¹⁹⁵, the geographical scope of the PSD was therefore limited only to transactions within the EU and “one-leg transactions”, i.e. transactions in which one of the payment service providers (either of the payer or the payee) is located outside of the EU¹⁹⁶, were left out of the scope of the PSD.¹⁹⁷ What is more, the scope of the PSD was further limited only to the currencies of the Member States.¹⁹⁸ Consequently, the PSD did not cover the whole area and a substantial amount of the payments was left out of the applicability of the PSD.

Further, the PSD included a number of explicit exclusions from the scope of the PSD. These exclusions include, *inter alia*, cash and cheque payments, payments carried out by means

¹⁹⁰ Article 94(1) of the PSD.

¹⁹¹ Application of the PSD to the whole EEA was extended by the Decision of the EEA Joint Committee No. 114/2008 of 7 November 2008 amending Annex IX (Financial services) and Annex XIX (Consumer protection) to the EEA Agreement.

¹⁹² See HARASIM and KLIMONTOWICZ, op. cit. No. 113, p. 61.

¹⁹³ Article 2(1) of the PSD.

¹⁹⁴ Article 2(2) of the PSD.

¹⁹⁵ Article 2(1) of the Proposal for a Directive of the European Parliament and of the Council on payment services in the internal market and amending Directives 97/7/EC, 2000/12/EC and 2002/65/EC COM(2005) 603 final.

¹⁹⁶ See e.g. HARASIM and KLIMONTOWICZ, op. cit. No. 113, p. 63.

¹⁹⁷ See e.g. MERCADO-KIERKEGAARD, op. cit. No. 185, pp. 184-185.

¹⁹⁸ See Article 2(2) of the Proposal, op. cit. No. 195 compared with Article 2(2) of the PSD.

of telecommunication, digital or information technology devices, limited network payments, payments carried out between payment service providers, their agents or branches and between a parent undertaking and its branch.¹⁹⁹ However, some of these exclusions were considered to be either too broad or unclear²⁰⁰, and thus they will be mentioned in the section regarding exclusions of the PSD2.

Given that one of the main aims was to maintain existing level of consumer protection and subsequently strengthen this level of consumer protection²⁰¹, many of the provisions of the PSD were designated for protection of consumers.²⁰² Member States were entitled to extend the protection also to the micro enterprises²⁰³ pursuant to certain provisions of the PSD²⁰⁴, but the protection under the PSD was not extended to other enterprises, which could have deviated from the provisions of the PSD by an agreement, given that “*consumers and enterprises are not in the same position*”.²⁰⁵ Therefore, the scope of protection under the PSD was divided into three groups: consumers, which enjoyed the full protection under the PSD, micro enterprises with a protection dependent on the Member States and other enterprises that did not have the same level of protection as the consumers.

(i.) Definition of the payment service providers under the PSD

The PSD laid down six categories of service providers that were covered by the PSD, namely credit institutions (i.e. banks), electronic money institutions²⁰⁶, post office giro institutions, payment institutions, the ECB and national central banks (when not acting in their capacity as monetary authority or other public authorities) and Member States or their regional or local authorities (when not acting as public authorities).²⁰⁷ Most of the mentioned institutions

¹⁹⁹ See Article 3 of the PSD.

²⁰⁰ See STEENNOT, Reinhard. ‘Reduced payer’s liability for unauthorized payment transactions under the second Payment Services Directive (PSD2)’ (2018) Computer Law & Security Review, vol. 34, issue 4, pp. 956-957.

²⁰¹ See Recitals 4, 13, 22, 25-29, 33-37 and 54 of the PSD.

²⁰² See e.g. Articles 30, 51 and 71. For the purpose of the PSD, consumer was in Article 4(11) of the PSD as “*a natural person who, in payment service contracts covered by this Directive, is acting for purposes other than his trade, business or profession*”. The same definition can be found in Article 4(20) of the PSD2.

²⁰³ The definition of the micro enterprise is given in Articles 1, 2(1) and 2(3) of the Annex to the Commission Recommendation of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises [2003] OJ L 124/36 (20 May 2003), which stipulates that a micro enterprise is “*an enterprise which employs fewer than 10 persons and whose annual turnover and/or annual balance sheet total does not exceed EUR 2 million*”.

²⁰⁴ See Articles 30(1), 51(1) and 71 of the PSD.

²⁰⁵ Recital 20 of the PSD. The possibility to deviate from the provisions of the PSD was included in Articles 30(1) and 51(1). According to Article 51(2) of the PSD, Member States were also entitled to exclude out-of-court redress procedure under Article 83 of the PSD for other entities than consumers.

²⁰⁶ As regards electronic money institutions, Article 1(1)(b) of the PSD referred to Article 1(3)(a) of Directive 2000/46/EC. The electronic money institutions are now defined in point (1) of Article 2 of Directive 2009/110/EC. See e.g. the definition of electronic money institutions in Article 1(1)(b) of the PSD2.

²⁰⁷ See Article 1(a)-(f) of the PSD.

were already regulated to a certain extent, but the payment institutions constituted a new category of payment service providers, while this new category was established as a response to “the growing number of payment solutions that were emerging in parallel with the growth in online and mobile commerce”²⁰⁸.

Under the PSD, the payment institution shall mean “a legal person that has been granted authorisation in accordance with Article 10 to provide and execute payment services throughout the Community”²⁰⁹. Further, the payment service is defined as “any business activity listed in the Annex”²¹⁰. Finally, the Annex to the PSD contains the list of seven relevant business activities that the payment institutions with appropriate authorisation are entitled to provide and execute in the EU. These activities consist of: depositing cash and withdrawal of cash from a payment account²¹¹; execution of payment transactions in funds²¹² which are on a payment account (including execution of direct debits and one-off direct debit, execution of payment transaction through a payment card or a similar device and execution of credit transfers, including standing orders)²¹³; execution of payment transaction with funds that are covered by a credit line (including execution of direct debits and one-off direct debit, execution of payment transaction through a payment card or a similar device and execution of credit transfers, including standing orders)²¹⁴; issuing of payment instruments²¹⁵ and acquiring of payment transactions²¹⁶; money remittance²¹⁷; and execution of certain payment transactions carried out by means of any telecommunication, digital or IT device²¹⁸. One of the main objectives that the PSD tried to achieve by adding these payment institutions as one of the regulated payment service providers was to promote the competition and facilitate new market penetration by entities distinct from

²⁰⁸ See CORTET, RIJKS and NIJLAND, op. cit. No. 155, p. 17.

²⁰⁹ Article 4(4) of the PSD.

²¹⁰ Article 4(3) of the PSD.

²¹¹ See Points 1 and 2 of the Annex to the PSD. The services under the relevant provisions of the PSD also include “all the operations required for operating a payment account”. Article 4(14) of the PSD defined a payment account as “an account held in the name of one or more payment service users which is used for the execution of payment transactions”. The definition of the payment account remains unchanged in Article 4(12) of the PSD2.

²¹² The definition in Article 4(15) of the PSD defined funds as “banknotes and coins, scriptural money and electronic money as defined in Article 1(3)(b) of Directive 2000/46/EC”. The definition in Article 4(25) of the PSD2 is similar only with an updated reference to “point (2) of Article 2 of Directive 2009/110/EC”.

²¹³ See Point 3 of the Annex to the PSD.

²¹⁴ See Point 4 of the Annex to the PSD.

²¹⁵ The PSD defined a payment instrument in Article 4(23) thereof as “any personalised device(s) and/ or set of procedures agreed between the payment service user and the payment service provider and used by the payment service user in order to initiate a payment order”. The same definition can be found in Article 4(14) of the PSD2. Please see part 3.2.3 below which analyses one of the cases in which the CJEU provided interpretation of the payment instruments under the PSD.

²¹⁶ See Point 5 of the Annex to the PSD.

²¹⁷ See Point 6 of the Annex to the PSD.

²¹⁸ See Point 7 of the Annex to the PSD.

banks.²¹⁹ The following subparagraph will further analyse the requirements for authorisation as a payment institution.

(ii.) Authorisation as a payment institution

Given that many of the provisions included in Title II of the PSD were technical in their nature, this part will provide an overview of these provisions and emphasis will be put on the crucial provisions included therein.

As was already mentioned above, regulators decided to introduce a new group of payment service providers, i.e. payment institutions. However, it was necessary to provide a legal basis for these payment institutions and lay down rules for appropriate supervision. As a result, the payment institutions were obliged to apply for authorisation under Article 5 of the PSD. Further, the payment institutions had to hold at the time of authorisation initial capital, which was in the amount between EUR 20.000 and EUR 125.000 based on the payment services that the payment institution provided, they had to guarantee the level of their own funds and adhere to certain safeguarding measures.²²⁰ Subsequently, these payment institutions could have been authorised and registered to public registers of the Member States.²²¹

Only the payment service providers were entitled to provide payment services specified in the PSD within the Member States, and thus authorisation was a prerequisite for payment institutions to provide such services.²²² The payment institutions were eligible to carry out only those activities relating to provision of payment services together with a limited number of other activities and had to adhere to additional requirements.²²³ The fundamental provision of the PSD that laid down a legal basis for exercise of the freedom to provide services within other Member States than the home Member State was included in Article 25 of the PSD. Pursuant to the said provision, the payment institutions were explicitly entitled to exercise their right of establishment and freedom to provide services in other Member States without any additional requirements.²²⁴

Nevertheless, the PSD allowed Member States to waive certain conditions required for authorisation of payment institutions for natural and legal persons that were not involved in money laundering or terrorist activities and the amount of payment transaction which these

²¹⁹ See Recitals 5 and 10 of the PSD and MERCADO-KIERKEGAARD, op. cit. No. 185, p. 182.

²²⁰ See Articles 6-9 of the PSD.

²²¹ See Articles 10-13 of the PSD.

²²² See Article 29 of the PSD.

²²³ See Articles 14-15 and 17-19 of the PSD.

²²⁴ The payment institutions were obliged to notify the competent authorities in their home Member States. Subsequently, the relevant competent authority had to inform the competent authorities in other Member States. See Article 25 of the PSD.

persons planned to execute according to their business plan did not exceed EUR 3 million per month within the whole period of twelve months.²²⁵ It was possible for these persons to apply to be entered in the relevant register without the need to comply with all the requirements for authorisation.²²⁶ One of the Member States that added this exemption to its legal system was the Czech Republic, which included “*small payment institutions*” among the list of persons entitled to provide payment services under the Act on Payment System.²²⁷

(iii.) Transparency rules

Title III of the PSD provided a comprehensive set of conditions and information requirements for payment services with the intention to achieve greater transparency.²²⁸ It was deemed necessary for the payment service users to receive all the relevant information regarding the real costs and chargers of the services provided by the payment service providers.²²⁹ Accordingly, the PSD laid down rules primarily concerning single payment transactions²³⁰, framework contracts (including changes and possible termination thereof), information provided to the payment service users concerning additional charges or reductions²³¹ and prohibition of charges for information provided in compliance with the PSD²³².

(iv.) Rights and obligations of the payment service users

In addition to transparency rules, the PSD laid down rules concerning rights and obligations of the payment users that particularly concerned authorisation and execution of payment transactions and out-of-court dispute resolutions.²³³ These three groups of rules will be analysed in the following lines.

Starting with the rules regarding authorisation of payment transactions, the main provision stipulated that “*a payment transaction is considered to be authorised only if the payer*

²²⁵ See Article 26(1) of the PSD.

²²⁶ See Article 26 of the PSD.

²²⁷ See paragraph 5(i) and paragraphs 35-44 of the Act No. 284/2009 Coll., on Payment System, as amended. Please note that these small payment institutions were also translated to English as “*small-scale payment service providers*”. These providers are also in the new Act on Payment System. For details see paragraph 5(i) and paragraphs 59-64 of the Act No. 370/2017 Coll., on Payment System.

²²⁸ See e.g. Recitals 18, 21 and 42 of the PSD.

²²⁹ See Recital 45 of the PSD.

²³⁰ See Articles 35-39 of the PSD.

²³¹ See Articles 40-48 of the PSD.

²³² See Article 32 of the PSD.

²³³ See Articles 54-63 of the PSD for provisions regarding authorisation of payment transactions, Articles 64-78 of the PSD for provisions regarding execution of payment transactions and Articles 80-83 of the PSD for provisions regarding out-of-court dispute resolution.

*has given consent to execute the payment transaction*²³⁴ and such consent could have been withdrawn by the payer any time, however no later than the point in time of irrevocability²³⁵. As a result, it was possible to revoke a payment order with a specified day of execution at the latest by the end of the business day preceding the specified day.²³⁶ The relevant chapter further specified obligations and rights of the payment service users (e.g. notification in case of loss of a payment instrument, protection of a payment instrument)²³⁷ and payment service providers (e.g. providing possibilities to report a loss, prevention of use of a payment instrument after reported loss)²³⁸ especially connected with the use of payment instruments (such as cards).²³⁹ In this respect, the crucial provision for protection of consumers was Article 61 which limited liability of payers for unauthorised payment transaction to a maximum amount of EUR 150.²⁴⁰ In other words, if a card was stolen and the cardholder properly reported the theft, then the cardholder's liability for unauthorised payments done with the card was limited to amount of EUR 150 provided that the cardholder did not act fraudulently or in violation of one or more of his obligations under the PSD with intent or gross negligence.²⁴¹ Even though the PSD did not provide explanation of the term "*gross negligence*"²⁴², which was criticised²⁴³, the example of gross negligence relating to the provided situation would be if the cardholder kept the PIN password on a note together with the card.²⁴⁴

The second important group includes provisions relating to execution of payment transactions. The first part of these rules concerned receipt, refusals and irrevocability of payment orders²⁴⁵ together with provisions prohibiting any additional charges that were not agreed, and thus ensuring that the amounts transferred and amounts received do not differ.²⁴⁶ The applicability of the second part of the rules was limited to payment transactions in euro, in national currency of the Member States outside of the Eurozone and those payment transactions *"involving only one currency conversion between the euro and the currency of a Member State outside the euro zone, provided that the required currency conversion is carried out in the*

²³⁴ Article 54(1) of the PSD.

²³⁵ Article 54(3) of the PSD.

²³⁶ Article 64(2) of the PSD read in conjunction with Article 66(4) thereof.

²³⁷ See Article 56 of the PSD.

²³⁸ See Article 57 of the PSD.

²³⁹ See Articles 52-63 of the PSD.

²⁴⁰ See Article 61(1) of the PSD.

²⁴¹ See Articles 61(1), 61(2) and 61(4) of the PSD.

²⁴² See Recitals 32 and 33 of the PSD and Articles 59(2) and 61(2) of the PSD.

²⁴³ See MERCADO-KIERKEGAARD, op. cit. No. 185, p. 182.

²⁴⁴ This can be evidenced by the fact that the regulators decided to mention this specific situation as an example of gross negligence in the PSD2. See Recital 72 of the PSD2. See also STEENNOT, op. cit. No. 200, p. 962.

²⁴⁵ See Articles 64-66 of the PSD.

²⁴⁶ See Article 67 of the PSD.

*Member State outside the euro area concerned and, in the case of cross-border payment transactions, the cross-border transfer takes place*²⁴⁷. For these payment transactions the PSD prescribed that they had to be carried out at the latest by the end of the next business day.²⁴⁸ However, it was possible to prolong this period up to three business days based on an agreement between a payer and his payment service provider until 1 January 2012.²⁴⁹ The main aim of the provision that put in place maximum execution time was to prevent payment service providers to hold the funds longer than necessary.²⁵⁰ This section of the PSD further provided that cash placed on a payment account shall be immediately made available²⁵¹ and it laid down provisions concerning liability of the payment service provider for non-execution or defective execution and for occurrence of other incidents²⁵².

The last part connected with the rights and obligations of the payment service users contained provisions concerning dispute resolution. Under these provisions the Member States were obliged to establish procedural rules for interested parties (including payment service users and consumer association) which would allow these parties to raise their complaints concerning possible infringements of the rules contained in the PSD and implemented to national law of the Member States.²⁵³ Further, the Member States had to put in place measures for alternative dispute resolution (or more precisely out-of-court redress procedures) that would enable the concerned parties to settle their disputes without the courts' intervention, if possible.²⁵⁴

The provided analysis sought to provide a brief overview of the provisions of the PSD for subsequent comparison, while it also tried to present the changes and novelties that the PSD brought to EU payment system. One of the main novelties of the PSD can be seen in the definition of payment institutions that enabled these institutions to be authorised and subsequently provide the payment services within the Member States. Further, the PSD consolidated rules that were previously fragmented, and thus comprehensive set of rules that would protect consumers was required. The following parts will contain analysis of the case-law relating to the PSD and evaluation of the PSD with reasons for adoption of the PSD2.

3.2.3. Relevant case-law of the CJEU relating to the PSD

²⁴⁷ Article 68(1) of the PSD.

²⁴⁸ Article 69(1) of the PSD.

²⁴⁹ See Article 69(1) of the PSD.

²⁵⁰ HARASIM and KLIMONTOWICZ, op. cit. No. 113, p. 62.

²⁵¹ Article 71 of the PSD.

²⁵² Articles 74-78 of the PSD.

²⁵³ See Articles 81 and 82 of the PSD.

²⁵⁴ See Article 83 of the PSD.

Even though the relevant case-law of the CJEU relating to the PSD is rather limited²⁵⁵, the following lines will provide an analysis of three of the cases that provided interpretation of certain definitions of the PSD that were unclear or contested by the parties to disputes, and thus the CJEU had to step in and provide a binding interpretation. Given that the relevant provisions of the PSD that were subject to interpretation of the CJEU remain in the same wording in the PSD2, it is submitted that these cases are relevant even after adoption of the PSD2.

In *T-Mobile Austria GmbH v. Verein für Konsumenteninformation*²⁵⁶, the CJEU was asked to interpret Articles 4(23) and 52(3) of the PSD that concerned the payment instruments and charges connected with these instruments. The dispute in the main proceedings arose between T-Mobile Austria, a provider of mobile telephone services in Austria, and Verein für Konsumenteninformation, an association for protection of consumers, over one of the provisions included in the general terms and conditions of T-Mobile.²⁵⁷ Pursuant to the contested provision of the general terms and conditions, consumers were required to pay additional monthly fee of EUR 3 if they decided to pay their bills by other means than credit cards and direct debits (e.g. by means of paper transfer orders).²⁵⁸

The Verein brought an action in which it sought to prevent the use of the contested provision in general terms and conditions of T-Mobile and the main proceedings came before the appellate court which decided to refer questions for preliminary ruling.²⁵⁹ First of all, the CJEU was asked whether Article 52(3) of the PSD shall be applicable to the use of payment instruments in contractual relationship between a mobile phone operator, as a payee, and a customer, as a payer, and the question was answered affirmatively.²⁶⁰ Secondly, the CJEU interpreted the definition of a payment instrument under Article 4(23) as covering “*the procedure for ordering transfers by means of a transfer order form signed by the payer in person and the procedure for ordering transfers through online banking*”²⁶¹. The third and final question dealt with the power of the Member States to prohibit generally payees (such as T-

²⁵⁵ The search form including Case-law of the CJEU at the official websites of the CJEU retrieves only ten cases relating to the PSD while only four of them provide interpretation of the provisions of the PSD. See the search form with list of results for the “*Directive 2007/64/EC*”, available at: <http://curia.europa.eu/juris/liste.jsf?pro=&nat=or&oqp=&dates=&lg=&language=en&jur=C%2CT%2CF&cit=L%252CC%252CCJ%252CR%252C2008E%252C%252C2007%252C64%252C%252C%252C%252C%252C%252Ctrue%252Ctrue&td=%3BALL&pcs=Oor&avg=&page=1&mat=or&jge=&for=&cid=209426>, last accessed 25 August 2018.

²⁵⁶ Case C-616/11, *T-Mobile Austria GmbH v Verein für Konsumenteninformation* [2014] ECLI:EU:C:2014:242.

²⁵⁷ *Ibid*, paragraphs 3-11.

²⁵⁸ *Ibid*, paragraphs 11-12.

²⁵⁹ *Ibid*, paragraphs 13-17.

²⁶⁰ *Ibid*, paragraphs 18 and 28.

²⁶¹ *Ibid*, paragraph 44.

Mobile) from levying charges on the payers (customers) for the use of any payment instruments, which was the situation in case at hand given that Austrian law prohibited additional charges.²⁶² The CJEU concluded that it was possible for the Member States to implement certain prohibitions, but the Member States had to consider the goals the PSD tried to achieve (i.e. enhanced competition and efficient use of payment instruments).²⁶³ As a result, the CJEU essentially confirmed that the relevant provisions of the PSD applied to the case at hand and the Member States are entitled to prohibit similar additional charges in their respective national laws.

The second case also involved the Verein as one of the parties to the original proceedings.²⁶⁴ According to the relevant provisions of the PSD, the payment service providers were obliged to provide payment service users with information concerning framework agreement concluded between those parties on paper or another durable medium²⁶⁵, which also included information regarding possible changes to the framework agreement.²⁶⁶ BAWAG PSK Bank für Arbeit und Wirtschaft und Österreichische Postsparkasse AG, a bank operating in Austria, had in its general conditions and terms a provision which enabled BAWAG to deliver notices and statements to its customers through special mailboxes located on the servers of BAWAG.²⁶⁷ The customers of BAWAG were provided with access to their online banking systems, which included the dedicated mailboxes for delivery of notices and statements, in compliance with a framework agreement concluded between BAWAG and a customer.²⁶⁸ The Verein tried to prevent this practice and therefore it applied for an injunction.²⁶⁹

The dispute was subsequently referred to the CJEU for a preliminary ruling concerning interpretation of durable medium and possibility to inform customers about changes to a framework agreement through similar online mailboxes.²⁷⁰ The CJEU came to the conclusion that information provided to the payment service user through the electronic mailboxes that are accessible via an online banking website can be considered to have been provided on a durable

²⁶² *Ibid*, paragraphs 10 and 45.

²⁶³ *Ibid*, paragraph 48.

²⁶⁴ Case C-375/15, *BAWAG PSK Bank für Arbeit und Wirtschaft und Österreichische Postsparkasse AG v Verein für Konsumenteninformation* [2017] ECLI:EU:C:2017:38.

²⁶⁵ Durable medium was defined in Article 4(25) of the PSD as “any instrument which enables the payment service user to store information addressed personally to him in a way accessible for future reference for a period of time adequate to the purposes of the information and which allows the unchanged reproduction of the information stored”. The same definition can be found in Article 4(35) of the PSD2.

²⁶⁶ See Articles 41(1) and 44(1) of the PSD.

²⁶⁷ See Case C-375/15, *op. cit.* No. 264, paragraphs 25-27.

²⁶⁸ *Ibid*.

²⁶⁹ *Ibid*, paragraph 28.

²⁷⁰ *Ibid*, paragraphs 29-33.

medium if two conditions are met: (i) the website allows the user to store and reproduce such information unchanged for an adequate period without any changes to the content of information and (ii) there is an active behaviour or intervention from the payment service provider (such as the sending of a letter or e-mail to the address regularly used by the user) if the user has to access the website in order to obtain the relevant information.²⁷¹ Consequently, this decision can be perceived as a step in the right direction since the ways of communication are changing and the shift from paper to paperless ways of communication are in line with the development of modern technologies. At the same time, this shift cannot be unrestricted, and thus it is necessary to preserve certain safeguards, as was done in the decision handed down by the CJEU.

The last of the relevant cases provided an interpretation of payment institutions that provide payment services consisting in services enabling cash withdrawals and relating activities for operating a payment account.²⁷² The main proceedings in this case concerned Mr Rasool who was criminally prosecuted in connection with alleged provision of payment services without authorisation through his company Rasool Entertainment GmbH.²⁷³ Rasool Entertainment operated two gaming arcades in Germany with slot machines and multifunctional terminals with cash.²⁷⁴ These multifunctional terminals were loaded with cash and offered the customers of gaming arcades a “cash-back” option whereby they could withdraw cash together with an order of a voucher for EUR 20 that allowed them to put coins in the slot machines.²⁷⁵ The relevant authorities took a view that these services constituted provision of payment services, and thus they brought criminal proceedings against Mr Rasool given that these services were allegedly carried out without the required authorisation.²⁷⁶

Accordingly, the referring court brought preliminary questions to the CJEU in which the referring court was essentially asking the CJEU to assess whether these activities of Mr Rasool could be considered as payment services, and thus requiring appropriate authorisation in accordance with the PSD.²⁷⁷ The CJEU noted that these activities of a “cash-back” were provided free of charge and the operations relating to payment account (such as communication with banks) were carried out by other network operator.²⁷⁸ Moreover, the activities carried out by

²⁷¹ *Ibid*, paragraph 53.

²⁷² See Article 4(3) of the PSD read in conjunction with point 2 of the Annex to the PSD. The same definition is incorporated in PSD2. See Article 4(3) of the PSD2 read in conjunction with point 2 of the Annex I to the PSD2.

²⁷³ See paragraphs 16-20 of the Case C-568/16, *Rasool Entertainment GmbH and Staatsanwaltschaft Stuttgart v Faiz Rasool* [2018] ECLI:EU:C:2018:211.

²⁷⁴ *Ibid*, paragraphs 16 and 18.

²⁷⁵ *Ibid*, paragraph 19.

²⁷⁶ *Ibid*, paragraph 20.

²⁷⁷ *Ibid*, paragraph 29.

²⁷⁸ *Ibid*, paragraphs 32-33.

Rasool Entertainment primarily concerned of gaming arcades and other activities were only ancillary to this activity that was considered to be a main activity of Rasool Entertainment.²⁷⁹ Therefore, the CJEU concluded that the activities carried out by Rasool Entertainment, which included a cash withdrawal service offered by the mentioned gaming arcade operator, cannot be considered as payment services within the meaning of the PSD.²⁸⁰

The above-mentioned case-law provided clarity to certain definitions stipulated in the PSD that were rather unclear. Moreover, the CJEU provided in *BAWAG*²⁸¹ the interpretation of the term “*durable medium*” which contributes to the development connected with the upswing of modern technologies and modern ways of communication. Given that these cases concerned definitions whose wording remained unchanged in the PSD2 and that these cases were handed down by the CJEU quite recently (one of them even on 22 March 2018)²⁸², it is argued that the interpretation provided by the CJEU will be relevant even after adoption of the PSD2.

3.2.4. Evaluation of the PSD followed by a decision to adopt a new directive

As early as in June 2010, we can notice the first consultations concerning possible necessity of a revised version of the PSD.²⁸³ These consultations were followed by the *General report on the transposition by the Member States*²⁸⁴ in 2011, which represented a first comprehensive document mapping the implementations of the PSD in the Member States.

The General report remarked that the implementations of the PSD did not create any major issues to the Member States.²⁸⁵ However, the General report observed that one of the main issues concerned Article 2 of the PSD relating to the scope of the PSD, because some of the Member States did not fully adhere to the wording of the PSD and extended the scope also to the one-leg transactions.²⁸⁶ Further, not all the definitions included in Article 4 of the PSD were properly implemented to the national legislation of the Member States and provisions concerning application for authorisation, own funds calculation and use of agents, branches and other

²⁷⁹ *Ibid*, paragraphs 35-38.

²⁸⁰ *Ibid*, paragraph 39.

²⁸¹ Case C-375/15, op. cit. No. 264.

²⁸² Case C-568/16, op. cit. No. 273.

²⁸³ See ROMĂNOVA, GRIMA and SPITERI, op. cit. No. 113, p. 7.

²⁸⁴ See Tipik Communication Agency S.A, ‘Directive 2007/64/EC: General report on the transposition by the Member States’ (August 2011), available at: https://ec.europa.eu/info/system/files/psd-transposition-study-report-31082011_en.pdf, last accessed 24 August 2018.

²⁸⁵ *Ibid*, p. 4.

²⁸⁶ *Ibid*, p. 4. One-leg transactions are those transactions in which one of the payment service providers is domiciled outside of the EU. For details see part 3.2.2(i) of this thesis.

entities²⁸⁷ caused a minor issues during the implementation.²⁸⁸ Therefore, some of the issues included in the PSD came to the surface.

After the General report, the European Commission drafted the *Green Paper: 'Towards an integrated European market for card, internet and mobile payments'* in which it identified certain obstacles for the development of markets with card, internet and mobile payments and raised a number of questions that were intended for the stakeholders in the relevant markets.²⁸⁹ The Green Paper was followed by the *Feedback statement* that included an overview of the responses from the relevant stakeholders.²⁹⁰ The Green Paper together with the Feedback statement concluded that the legislation concerning payment services still remained fragmented and that there was still a room for improvement in areas such as protection of consumers, transparency, surcharging, standardization and interoperability and payment security.²⁹¹ These two documents were followed by a resolution from the European Parliament in which the European Parliament analysed some of the issues and called for a better regulation of the card, internet and mobile payments.²⁹²

These early examinations of the market with payment services were subsequently supplemented by the detailed *Study on the Impact of the PSD* in 2013 that was commissioned by the European Commission.²⁹³ While the Study on the Impact of the PSD conceded that the PSD contributed to the development of the market with payment services, it also pointed out that only some of its general goals were reached.²⁹⁴ Further, the Study on the Impact of the PSD mentioned that it recorded 568 payment institutions and 2,203 institutions that were registered as small payment services providers as of September 2012.²⁹⁵ At the same time, the Study on the Impact

²⁸⁷ Articles 5, 8 and 17 of the PSD.

²⁸⁸ See The General Report, op. cit. No. 284, p. 5.

²⁸⁹ See Green Paper: 'Towards an integrated European market for card, internet and mobile payments' COM(2011) 941 final.

²⁹⁰ See European Commission, 'Feedback statement on European Commission Green Paper "Towards an integrated European market for card, internet and mobile payments"' (June 2012), available at: http://ec.europa.eu/internal_market/payments/docs/cim/gp_feedback_statement_en.pdf, last accessed 24 August 2018.

²⁹¹ See the Green Paper, op. cit. No. 289, pp. 2-19 and the Feedback statement, op. cit. No. 290, pp. 3-30.

²⁹² See European Parliament resolution of 20 November 2012 on 'Towards an integrated European market for card, internet and mobile payments' OJ C 419/19.

²⁹³ See iff, London Economics and PaySys, 'Study on the Impact of Directive 2007/64/EC on Payment Services in the Internal Market and on the Application of Regulation (EC) No. 924/2009 on Cross-Border Payments in the Community' (February 2013), available at: http://ec.europa.eu/internal_market/payments/docs/framework/130724_study-impact-psd_en.pdf, last accessed 24 August 2018. European Commission was required to carry out the review pursuant to Recital 37 and Articles 54 and 87 of the PSD.

²⁹⁴ *Ibid*, pp. IX and 268-269.

²⁹⁵ *Ibid*, pp. 269-270. Small payment institutions are those institutions that were registered pursuant to Article 26 of the PSD. These institutions did not have to adhere to all the conditions required for authorisation as a payment institution under Article 5 of the PSD provided that the respective Member State waived some of these conditions in their respective national law. The same exemption can be found in Article 32 of the PSD2.

of the PSD stressed that about three fourths of the payment institutions had provided their services even before the date when the PSD was adopted, and thus the PSD did not contribute to the growth of the payment institutions as originally expected.²⁹⁶ However, it was noted that the PSD and the possibilities of passporting supported innovation by enabling payment institutions to access markets previously beyond their reach.²⁹⁷

In conclusion, the Study on the Impact of the PSD brought several findings that may be divided into four groups including main findings for the subsequent development: (i) the market and regulation thereof remained fragmented even after adoption of the PSD and there were new market entrants that were not regulated (such as payment initiation services)²⁹⁸; (ii) the scope of the PSD needed revision (especially with regard to “*one-leg transactions*”) and exceptions from the scope were too broad²⁹⁹; (iii) passporting contributed to the development of the market with payment services but it was necessary to lay down more precise provisions governing passporting³⁰⁰ and (iv) the rules concerning fees and charges of payment required further clarification³⁰¹.

Therefore, it became apparent that the regulation of the payment services governed by the PSD required a revision given that not all of the goals set up by the PSD were achieved and rapid technological development brought about changes which needed to be addressed.³⁰² The European Commission was well aware of those issues identified in the above-mentioned documents and with that in mind it prepared a draft of a new directive on payment services.³⁰³

After consultations and amendments to the draft of the directive, the PSD2 was adopted and published in December 2015 and pursuant to Article 115(1) thereof it required to be implemented into the national law of the Member States by 13 January 2018. However, it should be briefly mentioned at this point that four of the Member States have not yet transposed the PSD2 into their national laws and not all the required supplementary measures have been adopted in time (or were adopted with the postponed date of entry into force), which have caused

²⁹⁶ *Ibid*, p. 270.

²⁹⁷ *Ibid*, pp. X and 270-271.

²⁹⁸ *Ibid*, pp. 15-47

²⁹⁹ *Ibid*, pp. VII-VIII and XIII-XVI, 94-173 and 274-275.

³⁰⁰ *Ibid*, pp. X, 174-218.

³⁰¹ *Ibid*, pp. XI-XIII and 48-93

³⁰² See NOCTOR, Mark. ‘PSD2: Is the banking industry prepared?’ (2018) Computer Fraud & Security, vol. 2018, issue 6, pp. 9-11, VARDI, op. cit. No. 184, p. 49, HARASIM and KLIMONTOWICZ, op. cit. No. 113, p. 62.

³⁰³ See Commission Staff Working Document Impact Assessment Accompanying the document Proposal for a directive of the European parliament and of the Council on payment services in the internal market and amending Directives 2002/65/EC, 2013/36/UE and 2009/110/EC and repealing Directive 2007/64/EC and Proposal for a Regulation of the European Parliament and of the Council on interchange fees for card-based payment transactions SWD(2013) 288 final, pp. 7-36.

certain delays with the application of the PSD2, as will be further explained in part 4.2 of this thesis

The PSD2 was adopted with the aim to tackle the issues identified in the reports and studies on implementation of the PSD, while it aims to: close the regulatory gaps and provide more certainty; enhance protection of the consumers; help to achieve more integrated and efficient internal market; lower prices and fees for payments and stimulate the competition by opening the market to the Fintech companies.³⁰⁴ Accordingly, the next part will provide an analysis of the changes that are coming along with adoption of the PSD2.

3.3. The revised Payment Services Directive (PSD2)

The PSD2 contains six titles and two annexes. The first title focuses on subject matter, scope and main definitions used in the PSD2.³⁰⁵ Further, the second title contains rules governing payment service providers and these articles especially lay down provisions regarding authorisation of payment institutions and exemption from authorisation.³⁰⁶ Furthermore, Title III deals with transparency of conditions and information requirements for payment services.³⁰⁷ Title IV addresses rights and obligations in relation to the provisions and use of payments services.³⁰⁸ Title V contains provision regarding delegated acts and regulatory technical standards.³⁰⁹ The last title contains final provisions, such as provisions concerning full harmonisation and transposition.³¹⁰ Annex I lists the payment services and Annex II contains correlation table of the provisions of the PSD and PSD2.

As was already mentioned, many of the provisions contained in the PSD2 are similar to the provisions of the PSD, and thus the analysis contained in 3.2.2 of this thesis is still relevant even after adoption of the PSD2. It is not the purpose of this thesis to provide an exhaustive list and description of all the provisions that have been amended or added to the PSD2. Therefore, only those provisions that are crucial for subsequent development or significantly improve the previous wording of the PSD will be mentioned.

Accordingly, the following text will be divided into six subsections. The first part will describe the scope of the PSD2 together with the amended list of exclusions (3.3.1). Two new

³⁰⁴ See Recitals 5, 6, 8, 11, 13, 19, 28, 29, 35, 55, 58 and 63 of the PSD2.

³⁰⁵ See Title I, Articles 1-4 of the PSD2.

³⁰⁶ See Title II, Articles 5-37 of the PSD2.

³⁰⁷ See Title III, Articles 38-60 of the PSD2.

³⁰⁸ See Title IV, Article 61-103 of the PSD2.

³⁰⁹ See Title V, Articles 104-106 of the PSD2.

³¹⁰ See Title VI, Articles 107-117.

payment services that were added to the list of permitted payment services under the PSD2, i.e. payment initiation service and account information service, will be described in parts 3.3.2 and 3.3.3, respectively. The provisions focusing on security measures will be addressed in part 3.3.4 and this part will be followed by an analysis of the provisions that were adopted in order to enhance consumer protection (3.3.5). In addition, the crucial role of the EBA and the measures that the EBA has adopted will be mentioned in part 3.3.6.

3.3.1. The scope of the PSD2 and exclusions from applicability of the PSD2

After the criticism regarding the scope of the PSD and especially the omission of the “*one-leg transactions*” from the scope thereof³¹¹, the regulators decided to fix this problem in the PSD2 by adding these transactions to the scope of the PSD2.³¹² The criticism primarily tried to draw attention to the fact that the payment services consisting in money remittance carried out by immigrants and migrant workers, who are considered to be a vulnerable group of the consumers, that were sending funds to the countries outside of the EEA were not covered by the scope of the PSD.³¹³

Therefore, Article 2(4) of the PSD2 now stipulates that the provisions of the PSD2 shall apply to “*payment transactions in all currencies where only one of the payment service providers is located within the Union, in respect to those parts of the payment transaction which are carried out in the Union*”, while the PSD2 excludes application of certain provisions thereof, such as provisions governing possible refunds and information duty regarding maximum execution time.³¹⁴ Moreover, the scope of the PSD2 was extended to transactions carried out by payment service providers (of the payer and the payee) or the sole payment service provider located within the EU irrespective of the currency, i.e. the scope was extended to transactions carried out in other currencies than only the currencies of the Member States provided that the payment service providers or the sole payment service provider are located within the EU.³¹⁵

The PSD2 was adopted as a full harmonisation directive³¹⁶ and it seeks to reduce the number of options of the Member States to derogate from the provisions of the PSD2 given that

³¹¹ See the part 3.2.4 of this thesis.

³¹² See Article 2 of the PSD2.

³¹³ See DONNELLY, Mary. ‘Payments in the digital market: Evaluating the contribution of Payment Services Directive II’ (2016) Computer Law & Security Review, vol. 32, issue 6, p. 830, and also the Study on the Impact of the PSD, op. cit. No. 293, pp. XIV and 141-148.

³¹⁴ See Article 2(4) of the PSD2. This provision explicitly excludes application of Articles 45(1)(b), 52(2)(e), 52(5)(g), 56(a), 62(2), 62(4), 76, 77, 81, 83(1), 89 and 92 of the PSD2.

³¹⁵ See Article 2(3) of the PSD2. The said provision also excludes application of certain provisions of the PSD2.

³¹⁶ See Article 107 of the PSD2.

the PSD and the options to derogate therefrom were subject to a criticism.³¹⁷ One of these options that was not taken over to the PSD2 is Article 41 of the PSD2 that explicitly prescribes that in a case where there is a dispute whether the payment service provider complied with its information requirements stipulated in the PSD2, then the burden of prove lies with the payment service provider.³¹⁸ However, a few new options were added to the PSD2, and thus the PSD2 still contains many options of the Member States or their competent authorities to derogate from the provisions of the PSD2. As a result, the total number of these options amounts to twenty-three³¹⁹, which is the same number of options as under the PSD.³²⁰ At the same time, it is necessary to point out that the wording of some of these options was amended in order to provide a greater legal certainty.³²¹

Further, the PSD2 contains a limited number of explicit exclusions from its scope.³²² Some of these exclusions, such as exclusion concerning payments in cash and cheques, did not cause any concerns, and thus they were taken over from the PSD to the PSD2 in their original wording.³²³ Nevertheless, the exclusion relating to limited networks, payment transactions made through a commercial agent and payment transactions executed by means of telecommunication, digital or IT devices cause issues in connection with their interpretation or were considered to be too broad, and therefore revision was required.³²⁴

As regards the limited network exclusions, the PSD2 amended the original provision included in the PSD, and therefore this exclusion shall apply to “*services based on specific payment instruments that can be used only in a limited way*”, which at the same time must meet one of three additional conditions.³²⁵ According to the PSD2, this exclusion will cover fuel cards, public transport card and certain specific meal vouchers, while the PSD2 specifies that this exclusion should be interpreted in a strict way.³²⁶ Even though the limited network exclusion was clarified in the PSD2, there are still concerns regarding interpretation of this exclusion given that

³¹⁷ See DONNELLY, op. cit. No. 313, p. 829 and the part 3.2.4 of this thesis.

³¹⁸ Compare Article 41 of the PSD2 with Article 33 of the PSD. According to Article 33 of the PSD, the Member States were entitled to stipulate that the burden of proof lies with the payment service provider, but it was not a mandatory provision.

³¹⁹ Even though Article 107(1) of the PSD2 includes only fifteen explicit derogations, we will get to a higher number if we follow the method of calculation mentioned in WANDHÖFER, op. cit. No. 174, pp. 128-132. These options to derogate from the provisions of the PSD2 can be found in Articles 2(5), 8(3), 24(3), 29(2), 29(4), 32(1), 32(4), 38(2), 42(2), 55(6), 57(3), 58(3), 61(2), 61(3), 62(5), 63(2), 63(3), 74(1), 76(4), 86, 101(2), 109(2) and 109(4) of the PSD2.

³²⁰ For details please see part 3.2.2 of this thesis.

³²¹ Compare Article 74(1) of the PSD2 with Article 61(3) of the PSD.

³²² See Article 3 of the PSD2.

³²³ Compare Articles 3(a) and 3(g) of the PSD2 with Articles 3(a) and 3(g) of the PSD.

³²⁴ See DONNELLY, op. cit. No. 313, pp. 831-832.

³²⁵ Please see Article 3(k) of the PSD2 for the additional conditions.

³²⁶ See Recitals 13 and 14 of the PSD2.

the PSD2 uses the wording such as “*a very limited range of goods*”³²⁷ that may cause issues concerning the interpretation.³²⁸

The second exclusion concerning payment transactions made through a commercial agent, which was governed by Article 3(b) of the PSD, raised concerns in connection with the term “*agent*”, because it was not clear whether the exclusion applied in a situation in which the agent acted on behalf of the payer or payee or on behalf of both of them.³²⁹ Consequently, the PSD2 explicitly provides that this exclusion applies only if there is an agreement between a commercial agent and a payee or a payer, whereas the commercial agent is entitled to act on behalf only the payer or the payee.³³⁰

The last exclusion that was substantially altered is the exclusion initially covering payment transactions executed by means of telecommunication, digital or IT devices, which was included in Article 3(l) of the PSD. Originally, this exclusion covered purchases of ringtones and premium SMS services that were charged to the customer together with other services provided by the operator.³³¹ However, this exclusion was considered to be too broad and there were suggestions that this exclusion could be extended to a general commerce, which would endanger the level playing field.³³² Even though these concerns never materialized, it was deemed necessary to modify this exclusion.³³³ Therefore, the exclusion has been revised and the wording was amended in order to provide a legal certainty for consumers and operators.³³⁴

As a result, the revised wording of the exclusion primarily focuses on micro-payment for digital content and voice-based services.³³⁵ The respective provision stipulates that from the scope of the PSD2 certain payment transactions which are offered by providers of electronic communication networks or additional services provided by these providers shall be excluded.³³⁶ These payment transactions include purchases of digital content and voice-based services, irrespective of the device that is used for that purchase and other payment transactions that are carried out through electronic devices as a payment for the purchase of tickets or within the

³²⁷ See Article 3(k)(ii).

³²⁸ For details regarding the concerns relating to interpretation of this exclusion see e.g. STEENNOT, op. cit. No. 200, pp. 956-957.

³²⁹ See the Study on the Impact of the PSD, op. cit. No. 293, pp. 125-126, and DONNELLY, op. cit. No. 313, pp. 831-832.

³³⁰ See Article 3(b) of the PSD2.

³³¹ See Recital 15 of the PSD2.

³³² See the Study on the Impact of the PSD, op. cit. No. 293, pp. 122-124.

³³³ See STEENNOT, op. cit. No. 200, p. 958, and DONNELLY, op. cit. No. 313, p. 832.

³³⁴ See Recital 15 of the PSD2.

³³⁵ See Recital 16 of the PSD2.

³³⁶ See Article 3(l) of the PSD2.

scheme of a charitable activity.³³⁷ At the same time these payments are limited by an amount of EUR 50 per any single payment transaction and by the cumulative amount of EUR 300 per month.³³⁸ Examples of this exclusion can be payments for car parking, transport and entry to various venues.³³⁹ Given that this exclusion covers micro-payments in video games that may be played by minors, which are considered to be a vulnerable group of consumers, it was argued that threshold of daily and monthly limits could have been set even lower than the current amounts.³⁴⁰

To conclude, the scope of the PSD2 was amended in line with the proposals for improvement that were made in connection with revisions of the PSD. However, the number and extent of options for Member States or their competent authorities to derogate from the provisions of the PSD2 did not substantially change and therefore it remains to be seen whether the desired level of harmonisation will be achieved. Further, the exclusions from the scope of the PSD were amended in the PSD2 in order to ensure greater legal certainty. In general, these steps can be welcomed, but there are still certain concerns that will be subject to further discussions and possible interpretation by the CJEU.

³³⁷ See Articles 3(1)(i) and 3(1)(ii) of the PSD2. The payment transactions must be charged to the related bill of a subscriber.

³³⁸ See Article 3(1) of the PSD2. The cumulative amount of EUR 300 per month shall also apply if a subscriber pre-funds its account.

³³⁹ See Recitals 15 and 16 of the PSD2.

³⁴⁰ See DONNELLY, *op. cit.* No. 313, p. 832, and STEENNOT, *op. cit.* No. 200, p. 958.

3.3.2. Payment Initiation Service

Some of the authors consider payment initiation service providers and account information service providers, which are collectively described as “*third party payment service providers*”³⁴¹, as one of the most important innovations that is coming along with adoption of the PSD2.³⁴² However, it must be pointed out that these providers are not entirely new, but they were not regulated at the EU level, which ended with adoption of the PSD2 that has established legal framework for these providers.³⁴³

Starting with payment initiation service, the respective definition provides that payment initiation service means “*a service to initiate a payment order at the request of the payment service user with respect to a payment account held at another payment service provider*”³⁴⁴ and the providers of these services are PISP³⁴⁵. In other words, this provider can be seen as a “*software bridge*” between the merchant and the customer’s bank which initiates a credit transfer from the customer’s bank.³⁴⁶ The following image represents a basic overview of the flow of information relating to a payment transaction in which the PISP is engaged together with other participants.³⁴⁷

³⁴¹ See e.g. SANTAMARÍA, Javier. ‘The emergence of new payment service providers and their impact on the regulatory and market environment’ (2014) *Journal of Payments Strategy & Systems*, vol. 8, No. 4, p. 407.

³⁴² See e.g. HATFIELD, Jacqui. ‘Innovation in payments and the revised Payments Services Directive’ (2017) *Journal of Payments Strategy & Systems*, vol. 11, No. 1, pp. 78-80 and CORTET, RIJKS and NIJLAND, op. cit. No. 155, pp. 17-20.

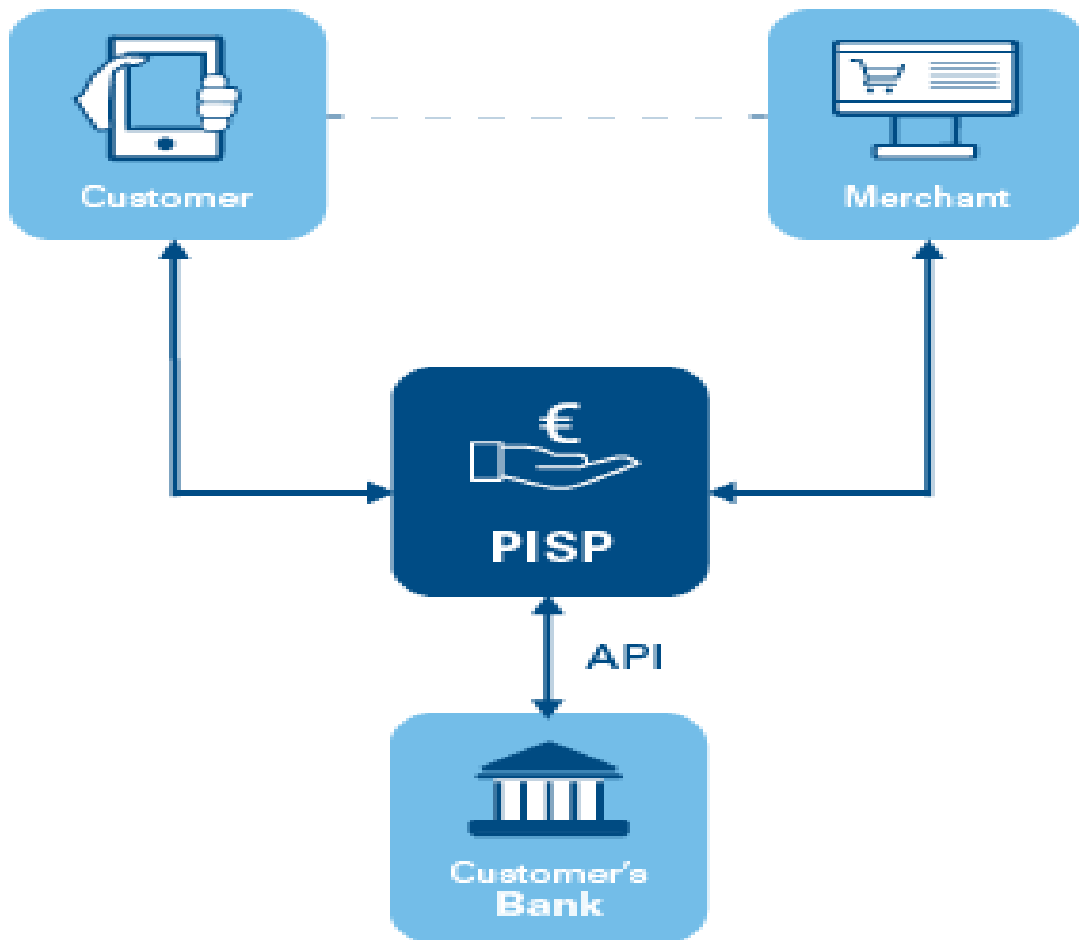
³⁴³ See SANTAMARÍA, op. cit. No. 341, p. 409, Recital 93 of the PSD2 and the Study on the Impact of the PSD, op. cit. No. 293, pp. 105-113. This can be also inferred from the fact that the PSD2 in Article 115(5) furnishes the payment initiation service providers and account information service providers that were active before 12 January 2016 with the transitional period in which they can continue to perform their activities.

³⁴⁴ See Article 4(15) of the PSD2.

³⁴⁵ Abbreviation that represents payment initiation service providers. See Article 4(18) of the PSD2.

³⁴⁶ Recital 27 of the PSD2.

³⁴⁷ The customer decides to acquire goods or services from the merchant. Subsequently, the customer instructs its PISP to initiate a payment transaction. PISP contacts customer’s bank with details provided by the customer and the banks confirms the payment instructions. PISP then informs the merchant. It is necessary to stress that PISP providing only payment initiation services shall not at any point of time hold the funds (Article 66(3)(a) of the PSD2). The funds shall be directly transferred from customer’s bank to the merchant’s bank. Source of the image: ‘The Impacts of PSD2 on the E.U. Payments Landscape Will It Change The Way We Pay?’ (23 May 2018), Global Payments Inc., available at: <https://www.globalpaymentsinc.com/en-ie/accept-payments/ecommerce/blog/2018/05/23/the-impacts-of-psd2-on-the-eu-payments-landscape-will-it-change-the-way-we-pay>, last accessed 25 August 2018.



The payment transaction with the involvement of PISP usually began with customer that was redirected to PISP's website.³⁴⁸ On these websites the customer had to fill in details to its online banking.³⁴⁹ These details were authenticated, and the customer was subsequently provided with a payment form that was pre-filled with details regarding the payment transaction.³⁵⁰ Once the payment was authorized, PISP informed the customer and the merchant and the amount was transferred from customer's bank to merchant's bank.³⁵¹ As a result, customers do not have to possess payment cards in order to buy goods from merchants and these PISP provide conform to the parties that the payment has been initiated, and thus the merchant has a strong incentive to immediately send the goods to the customer.³⁵²

Accordingly, PISP were provided with their respective legal framework and these services now have to apply for authorisation if they want to provide payment initiation

³⁴⁸ See DONNELLY, op. cit. No. 313, p. 830.

³⁴⁹ *Ibid.*

³⁵⁰ See STEENNOT, op. cit. No. 200, p. 955.

³⁵¹ *Ibid.*

³⁵² See Recital 29 of the PSD2.

services.³⁵³ Even though PISP are considered only as a medium risk in relation to the initial capital, they have to hold the initial capital of at least EUR 50,000 at the time of authorisation.³⁵⁴ The provisions concerning the requirement to hold certain amount of own funds do not apply to PISP, but PISP are required to hold a professional indemnity insurance.³⁵⁵ As regards the minimum monetary amount that this insurance has to cover, the EBA prepared guidelines concerning the criteria how to stipulate the appropriate amount.³⁵⁶

Further, PISP have to adhere to a number of obligations laid down by the PSD2. If PISP purely provides the services of payment initiation services, then they shall not hold the user's funds at any point of time.³⁵⁷ PISP can perform their activities only with explicit consent of their user³⁵⁸ and they have a number of obligations towards their users, especially in connection with protection of sensitive payment data and user's credentials.³⁵⁹ Moreover, PISP are obliged to apply strong customer authentication, which will be described below, in a case that they initiate an electronic payment transaction.³⁶⁰

In order to protect the users of PISP, the PSD2 tries to strike a balance between the possibility to provide payment initiation services without obstructions and protection of the users.³⁶¹ As a result, PSD2 demands that the burden of proof in a case that a user claims that the payment transaction was not properly executed or authorised shall rest with PISP.³⁶² What is more, the users shall be immediately refunded, and in any case no later than by the end of the following business day, for unauthorised payments by their account servicing payment service provider³⁶³ (usually represented by their banks) in a case that the payment transaction was

³⁵³ Article 5(2) of the PSD2.

³⁵⁴ See Recital 34 of the PSD2 and Article 7(b) thereof.

³⁵⁵ See Recital 35 of the PSD2 and Article 9(1) thereof.

³⁵⁶ See 'Final Report: Guidelines on the criteria on how to stipulate the minimum monetary amount of the professional indemnity insurance or other comparable guarantee under Article 5(4) of Directive (EU) 2015/2366 (PSD2)' (7 July 2017), European Banking Authority, available at: <https://www.eba.europa.eu/documents/10180/1901998/Final+Guidelines+on+PII+under+PSD2+%28EBA-GL-2017-08%29.pdf>, last accessed 23 August 2018.

³⁵⁷ See Recital 31 of the PSD2 Article 66(3)(a) thereof.

³⁵⁸ Article 64 of the PSD2 read in conjunction with Article 66 thereof.

³⁵⁹ Pursuant to Article 4(32) of the PSD2, sensitive payment data means "*data, including personalised security credentials which can be used to carry out fraud. For the activities of payment initiation service providers and account information service providers, the name of the account owner and the account number do not constitute sensitive payment data*". Some of the main obligations of PISP are laid down in Articles 45, 46, 64, 66(3) of the PSD2.

³⁶⁰ See Article 97(4) of the PSD2.

³⁶¹ See Recital 73 of the PSD2.

³⁶² Article 72 of the PSD2.

³⁶³ Article 4(17) of the PSD2 defines an account servicing payment service provider as "*a payment service provider providing and maintaining a payment account for a payer*". The definition was not included in the PSD, but it was added to the PSD2 in order to clarify the terms of the PSD2 in connection with adoption of PISP and AISP.

initiated by PISP.³⁶⁴ The same principle applies in relation to non-execution, defective or late execution of payment transactions.³⁶⁵

It follows from the previous lines that the legal relationship between PISP and AS PSP is important for the provisions of payment initiation services. However, the PSD2 stipulates that there does not have to be a contractual relationship between PISP and AS PSP.³⁶⁶ AS PSP shall provide PISP with an access to payment accounts and this access may be denied only in objectively justified and duly evidenced cases in which AS PSP assume unauthorised or fraudulent access to payment accounts.³⁶⁷ If AS PSP decide to deny access on the grounds of the said reasons, then they have to immediately report the incident to competent authorities.³⁶⁸ The high threshold justifying refusal of access together with an obligation to report the incident to a competent authority are designed to discourage abuse of this possibility to deny access by AS PSP. Further details concerning the possibility to access payment accounts by PISP will be given in the next part.

3.3.3. Account Information Service

The second group of services that were added to the PSD2 are account information services.³⁶⁹ The account information services are defined as “*an online service to provide consolidated information on one or more payment accounts held by the payment service user with either another payment service provider or with more than one payment service provider*”³⁷⁰ and the respective providers are AISP³⁷¹. In other words, AISP represent innovative companies that provide their customers with a comprehensive overview of either one or more of their payment accounts (usually various bank accounts) held with other payment service providers, which are accessed through an online interface.³⁷² These companies often provide ancillary services, such as recommendation concerning possible money savings.³⁷³ The following image

³⁶⁴ Article 73(2) of the PSD2. At the same time, Article 73(2) of the PSD2 provides that PISP shall immediately compensate the account servicing payment service provider if PISP is liable for that unauthorised payment transaction.

³⁶⁵ Article 90 of the PSD2.

³⁶⁶ See Recital 30 of the PSD2 and Article 66(4) of thereof.

³⁶⁷ Article 68(5) of the PSD2.

³⁶⁸ Article 68(6) of the PSD2.

³⁶⁹ See point 8 of Annex I to the PSD2.

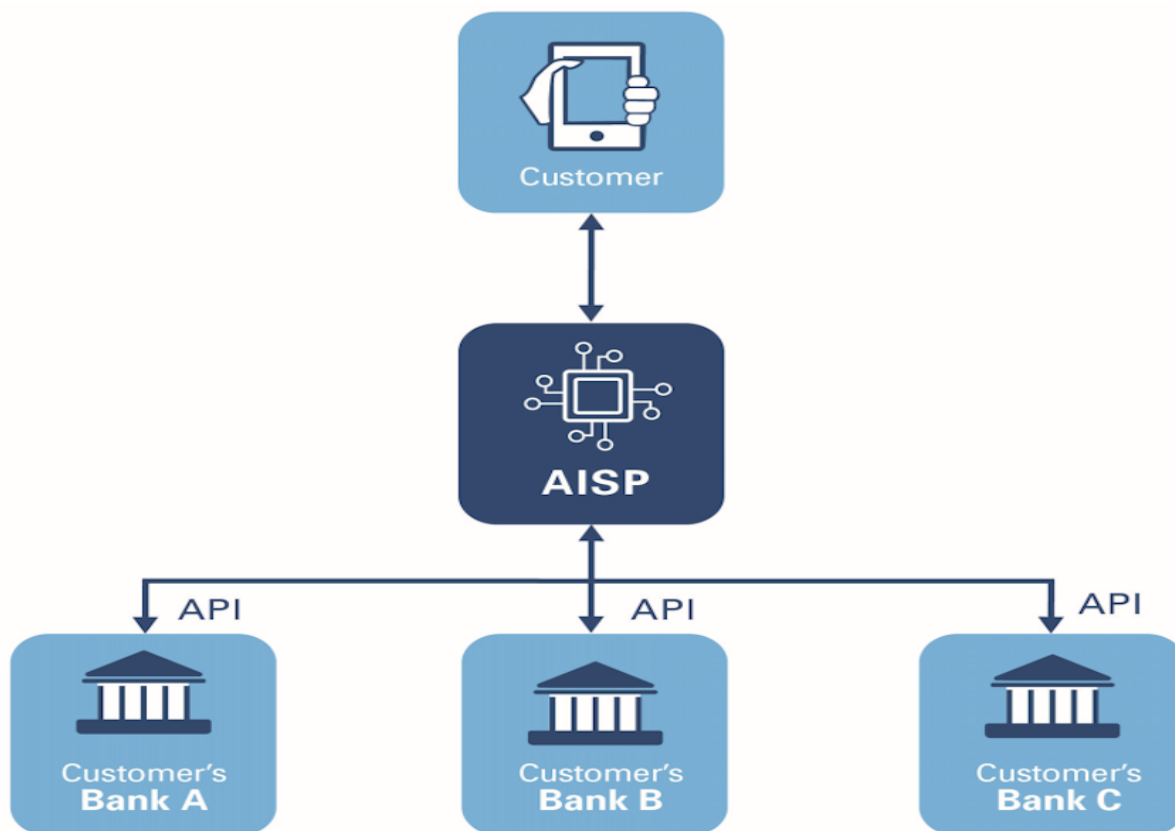
³⁷⁰ Article 4(16) of the PSD2.

³⁷¹ Abbreviation that represents account information service providers. See Article 4(19) of the PSD2.

³⁷² See Recital 28 of the PSD2.

³⁷³ See DONNELLY, op. cit. No. 313, p. 831. These services were also mentioned in part 2.2 of this thesis. See also footnote No. 107 above.

represents how information are transferred between the customer, AISP and customer's bank in an example with various bank accounts:³⁷⁴



Account information services and rules governing possible provision of these services are quite similar to rules concerning payment initiation services.³⁷⁵ Due to the nature of these services, AISP are to a large extent exempted from the general provisions of the PSD2.³⁷⁶ As a result, AISP are not obliged to possess any initial capital or adhere to the requirements regarding own funds, but they have to hold a professional indemnity insurance.³⁷⁷ Moreover, AISP are not a subject to an authorisation procedure as other payment institutions, but they have to apply for registration to provide their services.³⁷⁸ Nevertheless, AISP shall be treated as payment institutions (with the exception of a number of provisions of the PSD2), which entitles them to

³⁷⁴ Source of the image: 'The Impacts of PSD2 on the E.U. Payments Landscape Will It Change The Way We Pay?' (23 May 2018), Global Payments Inc., available at: <https://www.globalpaymentsinc.com/en-ie/accept-payments/ecommerce/blog/2018/05/23/the-impacts-of-psd2-on-the-eu-payments-landscape-will-it-change-the-way-we-pay>, last accessed 23 August 2018.

³⁷⁵ See Recitals 27-30 of the PSD2.

³⁷⁶ See Article 33 of the PSD2.

³⁷⁷ See Articles 5(3), 7 and 33 of the PSD2.

³⁷⁸ See Article 5(3) of the PSD2.

benefit from a limited number of general provisions of the PSD2, such as provisions concerning passporting.³⁷⁹

AISP shall be entitled to provide their services only if they obtain an explicit consent of their users³⁸⁰ and they have similar obligations towards their users as PISP, including data protection and information obligations.³⁸¹ In a situation that AISP provide exclusively account information services they should not hold any funds of their users.³⁸² Given that AISP do not initiate any payments, the PSD2 does not include any provisions concerning their potential liability in connection with unauthorised payment transactions.

As regards relationship between AISP and AS PSP, the situation is similar as with PISP, and therefore AISP do not have to enter into a contractual relationship with AS PSP in order to be eligible to provide account information services.³⁸³ At the same time, AS PSP may in special circumstances deny access of AISP to payment accounts.³⁸⁴

Traditionally, AISP and PISP could gain an access to payment accounts of their users primarily by two methods.³⁸⁵ The first method included the user's login and password details for access to payment accounts that were directly provided to AISP and PISP.³⁸⁶ Subsequently, AISP and PISP used these details to log onto user's account through websites of the respective payment service provider in a process that was commonly called "*screen scraping*".³⁸⁷ The second method was through a dedicated interface called "*application programme interface*", which enabled AISP and PISP to access and use payment accounts through these special APIs.³⁸⁸ Nevertheless, the payment service providers (and especially banks) were not obliged to provide AISP and PISP with a direct access to their account or access to their APIs.³⁸⁹ This has changed with adoption of the PSD2.³⁹⁰

³⁷⁹ See Article 33(2) of the PSD2 read in conjunction with Article 28 thereof. See also Recital 48 of the PSD2. The space precludes to elaborate on the topic of passporting, but for the purpose of this thesis it suffices to point out that the PSD2 properly improved the process concerning passporting. For details compare Article 28 of the PSD2 with Article 25 of the PSD.

³⁸⁰ Article 67(2)(a) of the PSD2.

³⁸¹ For details see Article 67(2) of the PSD2.

³⁸² See Recital 35 of the PSD2. However, the PSD2 does not include similar provision as Article 66(3)(a) of the PSD2 that explicitly prohibits PISP to hold any funds. This stems from the fact that AISP (unlike PISP) do not initiate any payment transactions.

³⁸³ Article 67(4) of the PSD2.

³⁸⁴ Articles 68(4) and 68(5) of the PSD2. For details see also part 3.3.2 of this thesis.

³⁸⁵ See e.g. TEIGLAND, SIRI, LARSSON, MORENO and BOGUSZ, op. cit. No. 100, pp. 28-30 and 369.

³⁸⁶ See e.g. 'Where Do Banks Fit in the Fintech Stack' (2017), Lael Brainard, Speeches of Federal Reserve Board Members, available at: <https://www.federalreserve.gov/newsevents/speech/brainard20170428a.htm>, last accessed 25 August 2018.

³⁸⁷ *Ibid.*

³⁸⁸ See NOCTOR, op. cit. No. 302, pp. 9-11.

³⁸⁹ *Ibid.*

³⁹⁰ See Recital 93 of the PSD2 and Articles 65, 66, 67 and 97 thereof.

As was already mentioned above, AISP and PISP shall have access to the payment accounts of their users provided that those users decide to use their services.³⁹¹ However, the obligation of AS PSP to provide AISP and PISP with an access to payment accounts has been postponed in order to furnish AS PSP with time to prepare appropriate measures.³⁹² Accordingly, AS PSP shall make available a testing facility to AISP and PISP from 14 March 2019, which will allow AISP and PISP to adapt to the corresponding interfaces.³⁹³ Further, AS PSP are obliged to have in place at least one interface, which will allow AISP and PISP access to payment accounts, no later than 14 September 2019, i.e. this date represents the date when the full operation of the respective measures shall arrive, and thus AISP and PISP should be entitled to fully access the payment accounts in order to provide their services.³⁹⁴

The regulators decided that screen scraping shall not be used in the future for an access to payment accounts by AISP and PISP³⁹⁵, and thus the preferred choice is an access through APIs.³⁹⁶ As a result, AS PSP may either decide to develop a dedicated interface or use an existing interface that is used for authentication and communication with their customers.³⁹⁷ The European Commission (together with an assistance of the EBA) has adopted delegated regulation that lays down the rules concerning technical standards for communication, including rules focusing on interfaces for access of payment accounts.³⁹⁸

Some of the authors claim that the aforesaid changes will bring along improved access to services together with an accelerated development of services given that the banks will be forced

³⁹¹ See Articles 66 and 67 of the PSD2.

³⁹² Articles 65, 66, 67 and 97 of the PSD2 read in conjunction with Article 115(4) thereof. The said measure is mentioned in the next footnote.

³⁹³ Article 30(5) of the Commission Delegated Regulation (EU) 2018/389 of 27 November 2017 supplementing Directive (EU) 2015/2366 of the European Parliament and of the Council with regard to regulatory technical standards for strong customer authentication and common and secure open standards of communication OJ L 69 read in conjunction with Article 38(3) thereof.

³⁹⁴ *Ibid*, Article 38(2).

³⁹⁵ See e.g. Explanatory Memorandum to Commission Delegated Regulation (EU) No .../.. supplementing Directive 2015/2366 of the European Parliament and of the Council with regard to regulatory technical standards for strong customer authentication and common and secure open standards of communication C/2017/7782 final, p. 3.

³⁹⁶ See e.g. EBA, 'Opinion of the European Banking Authority on the implementation of the RTS on SCA and CSC' (13 June 2018), available at: <https://www.eba.europa.eu/documents/10180/2137845/Opinion+on+the+implementation+of+the+RTS+on+SCA+and+CSC+%28EBA-2018-Op-04%29.pdf>, last accessed 25 August 2018.

³⁹⁷ See Article 31 of the Delegated Regulation, op. cit. No. 393. It is necessary to point out that the second option is not the same as the screen scraping due to the fact that under the new provisions AISP and PISP will not access the payment accounts with user's login and password details, but they will have to identify themselves with their own details. In addition, AISP and PISP have to adhere to a new set of obligations, which, *inter alia*, requires them to identify themselves towards AS PSP and communicate securely with AS PSP. See Articles 66 and 67 of the PSD2 and the Delegated Regulation, op. cit. No. 393, Articles 30 and 31.

³⁹⁸ See the Delegated Regulation, op. cit. No. 393.

to provide AISP and PISP with an access to their APIs.³⁹⁹ However, there are certain issues and the possible implications for banking and the Fintech industry is not as straightforward as it may seem at first glance. These issues will be discussed together with other relevant aspects in chapter 4 of this thesis.

3.3.4. Security measures under the PSD2

The rapid development of modern technologies has also its reflection in growth of electronic payments.⁴⁰⁰ The number of these payment carried out by their users was continuously growing and this also contributed to the advancement of new payment technologies and new payment services that were, however, becoming more complex, and thus more difficult for consumers to comprehend.⁴⁰¹ As a result, it was necessary to adopt measures that will address the potential issues these modern ways of electronic payments are bringing about.⁴⁰²

The payment service providers are therefore obliged to put in place measures that will prevent and mitigate potential security risks.⁴⁰³ These measures have to be regularly reviewed and the competent authorities have to be informed about the appropriate measures that the payment service providers have adopted.⁴⁰⁴ In a case that a major operational or security incident occurs, then the competent authorities have to immediately be informed about such incidents in order to prevent potential damage to users of these system and prevent disruption of the whole payment system.⁴⁰⁵

Nevertheless, probably the most important provision of the PSD2 concerning security protection can be seen in rules relating to strong customer authentication that shall apply in cases when the payer (usually consumer) “*accesses its payment account online*”⁴⁰⁶; “*initiates an electronic payment transaction*”⁴⁰⁷ or “*carries out any action through a remote channel which may imply a risk of payment fraud or other abuses*”⁴⁰⁸. The PSD2 prescribes that strong customer authentication shall involve at least two of the following elements: (i) knowledge (something only the user knows, an example could be a password); (ii) possession (something only the user possesses, such as a payment card) and (iii) inherence (something that the user is, e.g. fingerprint

³⁹⁹ See SCARDOVI, op. cit. No. 51, p. 28.

⁴⁰⁰ See Recital 7 of the PSD2.

⁴⁰¹ *Ibid.*

⁴⁰² See Recitals 7, 29 and 95 of the PSD2.

⁴⁰³ Article 95(1) of the PSD2.

⁴⁰⁴ Article 95(2) of the PSD2.

⁴⁰⁵ Article 96 of the PSD2 and Recitals 91 and 95 thereof.

⁴⁰⁶ Article 97(1)(a) of the PSD2.

⁴⁰⁷ Article 97(1)(b) of the PSD2.

⁴⁰⁸ Article 97(1)(c) of the PSD2.

or voice recognition).⁴⁰⁹ These elements have to be independent of each other and in case that one of them is breached, then the security of the others must be preserved, i.e. it must not result in compromise of the other elements.⁴¹⁰ It is worth noting that the obligation to use strong customer authentication applies also the PISP.⁴¹¹

Therefore, we (as the customers) will be required to use strong customer authentication consisting of at least two independent elements when, for example, we decide to buy goods online or make electronic payments. However, the regulators are aware that the strict application of these rules will not be user-friendly for consumers, and therefore they are seeking to strike a balance by laying down a number of exceptions from obligations of strong customer obligation.⁴¹² These examples include, *inter alia*, cases when we access online account only to ascertain the balance of that account or the transactions that were executed in the last 90 days⁴¹³ and initiate contactless payment at the point of sale provided that the individual amount does not exceed 50 EUR, the cumulative amount does not exceed EUR 150 and the number of consecutive contactless payments does not exceed five⁴¹⁴.

Application of strong customer authentication has also consequences for potential payer's liability for unauthorised payment transactions.⁴¹⁵ In a case that strong customer authentication is not required by the payment service provider, then the payer shall not be held liable provided that the payer did not act fraudulently.⁴¹⁶ However, it is not only the payer's payment service provider that will ultimately bear losses of such unauthorised payment transaction, but payee and payee's payment service provider may be required to refund the financial damage if they fail to accept strong customer authentication.⁴¹⁷

In general, the changes concerning security measures included in the PSD2 can be welcomed, as they are seeking to protect consumers and other parties from potentially harmful situations and, at the same time, these rules are trying to establish a safe online environment for payment transactions in which the consumers would be adequately protected. However, it is not

⁴⁰⁹ See Article 4(30) of the PSD2 and STEENNOT, op. cit. 200, p. 959.

⁴¹⁰ Article 4(30) of the PSD2.

⁴¹¹ Article 97(4) of the PSD2.

⁴¹² See Recitals 11 and 12 of the Delegated Regulation, op. cit. No. 393.

⁴¹³ Article 10(1) of the Delegated Regulation, op. cit. No. 393.

⁴¹⁴ Article 11 of the Delegated Regulation, op. cit. No. 393.

⁴¹⁵ Article 74 of the PSD2.

⁴¹⁶ Article 74(2) of the PSD2.

⁴¹⁷ See Article 74(2) of the PSD2 and STEENNOT, op. cit. 200, p. 961.

possible to fully assess whether the rules will bring the desired impacts given that most of these rules will be fully applicable from 14 September 2019.⁴¹⁸

3.3.5. Enhanced consumer protection

Together with other goals that the PSD2 is trying to achieve, the PSD2 aims to put in place a set of rules that would clarify the position of consumers and enhance their protection.⁴¹⁹ The PSD2 follows the principle of a different level of protection of consumers and undertakings that was established in the PSD, which allows persons other than consumers to agree that certain provisions of the PSD2 shall not apply to them and their respective agreements.⁴²⁰ It is important to stress that most of the provisions governing transparency and information requirements and rights and obligations of the payment service users remained almost identical⁴²¹, and thus the following lines will only address the most important changes in favour of the consumers.

Some of the important changes were already mentioned in parts 3.3.1 to 3.3.4 of this thesis, since revised security measures, broader scope of the PSD2 and regulation of new payment service providers also contribute to the overall protection of consumers. As a result, the main changes presented in this chapter will concern limitation of the amount for unauthorised payments paid by consumers, surcharges and complaints procedure.

As regards the amount of losses for unauthorised payment transactions that the payer must bear, this amount has been lowered from EUR 150 to EUR 50⁴²², which is deemed to be an adequate amount that ensures high-level of consumer protection.⁴²³ Moreover, the PSD2 clarified the rules relating to situations in which the payer shall bear all the losses incurred in connection with unauthorised payment transactions since the concept of gross negligence was not interpreted uniformly by the Member States.⁴²⁴ Accordingly, the occasions of gross negligence shall cover situations involving a significant degree of carelessness, such as keeping a note with PIN together with the credit card.⁴²⁵ Furthermore, the payers are protected from potential unauthorised payments by Article 75 of the PSD2 which provides that the payer's payment

⁴¹⁸ This mostly concerns the general rules focusing on security measures for the application of strong consumer authentication and exemptions from the obligation to apply strong customer authentication. For details see Article 38(2) of the Delegated Regulation, op. cit. No. 393.

⁴¹⁹ For details see parts 3.3.4 and 3.3 of this thesis.

⁴²⁰ See e.g. Recital 53 of the PSD2 and Articles 38 and 61 thereof.

⁴²¹ Compare Title III, Articles 38-60 and Title IV, Articles 61-103 of the PSD2 with Title III, Articles 30-50 and Title IV, Articles 51-83 of the PSD.

⁴²² Compare Article 74(1) of the PSD2 with Article 61(1) of the PSD.

⁴²³ See Recital 71 of the PSD2.

⁴²⁴ Compare Articles 74-77 of the PSD2 with Article 61-63 of the PSD. For details regarding the different interpretation see e.g. MEULEN, Nicole Vander. 'You've been warned: Consumer liability in Internet banking fraud' (2013) *Computer Law & Security Review*, vol. 29, issue 6, pp. 713-718.

⁴²⁵ See Recital 72 of the PSD2.

service provider may block funds in cases where the transaction amount is not known in advance only if the payer gives its consent to the total amount of funds that shall be blocked.⁴²⁶ This provision shall cover payment transaction such as hotel reservations and those under car rental agreements.⁴²⁷

Furthermore, the PSD2 addresses the issues connected with the practices known as surcharging, i.e. charges for use of certain payment instruments.⁴²⁸ In this respect, it is important to note that PSD2 was adopted together with Regulation (EU) 2015/751⁴²⁹ that lays down limits for interchange fees connected with card-based payment transactions. These provisions are supplemented by the PSD2 which explicitly prohibits any surcharges for the use of payment instruments that are covered by the said regulation.⁴³⁰

Finally, the provisions regarding complaints procedure, which can resolve the issues before these issues are referred to alternative dispute resolutions procedure or to the courts⁴³¹, together with the respective competent authorities authorised to resolve these complaints have been amended.⁴³² The process concerning complaints procedure has been clarified and the EBA adopted guidelines that specify certain outstanding issues, such as information that should be included in the complaint and in the subsequent response to the complaint, channels that should be used to submit complaints and the obligation of the respective competent authorities to monitor and document these complaints.⁴³³

3.3.6. The role of the EBA

The last of the important changes, which are coming along with the PSD2, is the strengthening of the position of the EBA given that the EBA is considered to possess the expertise required for preparation of guidelines and regulatory technical standard that will supplement PSD2.⁴³⁴ Pursuant to the PSD2, the EBA has been empowered to develop twelve

⁴²⁶ See Article 75(1) of the PSD2, which was not included in the PSD.

⁴²⁷ See Recital 75 of the PSD2.

⁴²⁸ See Recital 66 of the PSD2. For details regarding surcharging see e.g. 'Review of the Payment Services Directive: The question of surcharges' (2011), ECRI Policy Brief No. 5., available at: http://aei.pitt.edu/32634/1/ECRI_PB_No_5_Pyykko_on_the_PSD.pdf, last accessed 25 August 2018.

⁴²⁹ See the Regulation, op. cit. No. 175.

⁴³⁰ See Article 62(4) of the PSD2. See also part 3.1 of this thesis.

⁴³¹ See Recital 98 of the PSD2.

⁴³² Compare Articles 99-103 of the PSD2 with Articles 80-83 of the PSD.

⁴³³ The guidelines were adopted in accordance with Article 100(6) of the PSD2. See EBA, 'Final Report: Guidelines on procedures for complaints of alleged infringements of Directive (EU) 2015/2366' (13 October 2017), available at: <https://www.eba.europa.eu/documents/10180/1989045/Final+Guidelines+on+complaint+procedures+under+PSD2+%28EBA-GL-2017-13%29.pdf>, last accessed 25 August 2018.

⁴³⁴ See Recitals 107 and 108 of the PSD2.

documents, which consist of regulatory technical standards and guidelines.⁴³⁵ These documents are crucial for proper functioning of the provisions of the PSD2 since not all of the measures could have been regulated in the PSD2. What is more, the possibility to review and subsequently amend the guidelines offers the EBA with an opportunity to promptly react to new developments in this area.

The guidelines adopted by the EBA includes measures that specify provisions of the PSD2, such as guidelines on fraud reporting⁴³⁶, security measures⁴³⁷ and authorisation and registration⁴³⁸. What is more, the EBA is authorised to issue opinions that can contribute to uniform application of the PSD2.⁴³⁹ As an example, the EBA issued opinion on the implementation of the RTS on SCA and CSC⁴⁴⁰ that interprets unclear provisions of the Commission Delegated Regulation (EU) 2018/389⁴⁴¹.

In this respect, one of the essential opinions issued by the EBA is the opinion on the transition from PSD1 to PSD2⁴⁴². This opinion provides the competent authorities with information concerning the transition and instructions how to handle the re-authorisation of existing payment institutions and how to treat PISP and AISP during the transition period.⁴⁴³ Given that the provisions regarding strong customer authentication and common standards for communication and APIs will apply fully from 14 September 2019, the EBA instructs the competent authorities to allow the existing methods of screen scraping to be used by AISP and PISP, while, at the same time, the EBA instructs the competent authorities not to use the

⁴³⁵ See EBA, 'Opinion of the European Banking Authority on the transition from PSD1 to PSD2' (19 December 2017), available at: <https://www.eba.europa.eu/documents/10180/2067703/EBA+Opinion+on+the+transition+from+PSD1+to+PSD2+%28EBA-Op-2017-16%29.pdf>, last accessed 25 August 2018.

⁴³⁶ See EBA, 'Final Report: Guidelines on fraud reporting under the Payment Services Directive 2 (PSD2)' (18 July 2018), available at: <https://www.eba.europa.eu/documents/10180/2281937/Guidelines+on+fraud+reporting+under+Article+96%286%29%20PSD2+%28EBA-GL-2018-05%29.pdf/5653b876-90c9-476f-9f44-507f5f3e0a1e>, last accessed 25 August 2018.

⁴³⁷ See EBA, 'Final Report: Guidelines on the security measures for operational and security risks of payment services under Directive (EU) 2015/2366 (PSD2)' (12 December 2017), available at: <https://www.eba.europa.eu/documents/10180/2060117/Final+report+on+EBA+Guidelines+on+the+security+measures+for+operational+and+security+risks+under+PSD2+%28EBA-GL-2017-17%29.pdf>, last accessed 25 August 2018.

⁴³⁸ See EBA, 'Final Report on the EBA Guidelines under Directive (EU) 2015/2366 (PSD2) on the information to be provided for the authorisation of payment institutions and e-money institutions and for the registration of account information service providers' (11 July 2017), available at: <https://www.eba.europa.eu/documents/10180/1904583/Final+Guidelines+on+Authorisations+of+Payment+Institutions+%28EBA-GL-2017-09%29.pdf/f0e94433-f59b-4c24-9cec-2d6a2277b62c>, last accessed 25 August 2018.

⁴³⁹ See footnote No. 43 above.

⁴⁴⁰ See the Opinion, op. cit. No. 396.

⁴⁴¹ See the Commission Delegated Regulation, op. cit. No. 393.

⁴⁴² See the Opinion, op. cit. No. 435.

⁴⁴³ *Ibid*, pp. 5-6

provisions stipulating obligations of AISP and PISP to identify themselves and communicate securely with AS PSP during the transition period.⁴⁴⁴

As a result, the guidelines and opinions issued by the EBA can be seen as crucial measures for the future development and unification of the different practice approaches between the Member States and their respective competent authorities. Even though these opinions issued by the EBA may be not entirely binding on the competent authorities, they may help to unify the practice by their persuasiveness.⁴⁴⁵

In the following chapter, the differences between the PSD and PSD2 will be evaluated together with the possible effects the changes coming along with the PSD2 may have on banking and the Fintech industry.

⁴⁴⁴ *Ibid*, pp. 6-7

⁴⁴⁵ See Article 29(1) of the Regulation, op. cit. No. 34.

4. Revolution or gradual evolution for the Fintech Industry and bright prospects?

The main aim of this chapter is to present arguments that would answer the question posed in the title of this chapter. For that reason, the first part of this chapter will evaluate the impacts that the PSD2 may have on banking and the Fintech industry (4.1). Subsequently, the second part is going to discuss additional factors that may tip the scales or hinder the further advancement of the Fintech industry (4.2).

4.1. Assessment of the changes coming along with the PSD2 for the whole banking and Fintech industry

Part 3.3 of this thesis presented a considerable number of amendments to the PSD that are included in the revised directive, i.e. in the PSD2. While many of these changes will be beneficial for consumers and will provide them with a greater security and overall protection, not all of them will have significant effects on banking. Accordingly, three of the presented changes may cause disruption to the banking system as we know it, namely AISP, PISP and most importantly the obligation of AS PSP (mostly banks) to open their accounts.

Until now, the banks were not obliged to provide access to payment accounts to third parties via APIs or through other comparable interfaces.⁴⁴⁶ As a result, providers of services, such as AISP and PISP, had to access payment accounts through other methods including screen scraping, which is not considered to be secure or user-friendly.⁴⁴⁷ As of 14 March 2019, banks and other financial institutions that fall under the definition of AS PSP will have to provide AISP and PISP with an access to a testing facility and this access will be followed by a full access to payment accounts on 14 September 2019.⁴⁴⁸ Subsequently, customers and other service providers with an access from the customers will gain the access to a bulk of data regarding their accounts that could be used for price comparison and other purposes.⁴⁴⁹ Banks and other financial institutions will not be able to hinder access to these data that were once stubbornly protected from other market participants.⁴⁵⁰

⁴⁴⁶ See e.g. NOCTOR, op. cit. No. 302, p. 9.

⁴⁴⁷ *Ibid.*

⁴⁴⁸ See Article 38 of the Delegated Regulation, op. cit. No. 393. See also part 3.3.3 of this thesis.

⁴⁴⁹ See SCARDOVI, op. cit. No. 51, pp. 22-23.

⁴⁵⁰ *Ibid.*

Migration to APIs will also enable the developers to build on existing interfaces, and therefore they will not have to start from a scratch when developing their software.⁴⁵¹ It is expected that the PSD2 and the shift to APIs will help to resolve the existing problems with non-uniform interfaces among the market.⁴⁵²

At the same time, the PSD2 provided AISP and PISP with a seat at the table by granting them appropriate access to the market.⁴⁵³ The PSD2 explicitly stipulates that various payment institutions shall have access to payment accounts on “*an objective, non-discriminatory and proportionate basis*”⁴⁵⁴. As a result, AISP and PISP will gain an access to payment accounts and they will have the opportunity to provide their services within the whole EU on condition that they fulfil requirements for passporting.⁴⁵⁵

Cortet, Rijks and Nijland have presented four viable options how the banks can adapt to the PSD2 and obligations included therein.⁴⁵⁶ These options are: comply; compete; expand and transform.⁴⁵⁷ The first option anticipates only bare minimum: banks will comply with the obligations stipulated in the PSD2 and they will provide their services as if nothing has changed.⁴⁵⁸ The second option requires more effort from the banks since they will have to employ more offensive strategy by offering innovative products, while relying on their established client base and procedures.⁴⁵⁹ Further, the banks may seize the opportunity and go beyond their usual scope and established services, which would be the third option that includes expansion beyond their traditional reach.⁴⁶⁰ Finally, the option of transformation incorporates the previous options and expects banks to reach beyond their ordinary scope and establish new partnership agreements with Fintech companies that will help them to evolve.⁴⁶¹

Even though the presented options include many other factors that must be taken into account, it is highly likely that the banks are well aware of the risks and potential opportunities that are coming along with the PSD2. While it is not possible to generalize and make assumptions about all the banks, it could be expected that the banks will try to benefit from the opportunities that are stemming from adoption of the PSD2.

⁴⁵¹ See e.g. NOCTOR, op. cit. No. 302, pp. 9-10.

⁴⁵² ‘Regulatory sandbox lessons learned report’, op. cit. No. 150, pp. 17-18.

⁴⁵³ See Recital 67 of the PSD2.

⁴⁵⁴ See Article 36 of the PSD2. See also Recitals 33, 39, 50 of the PSD2.

⁴⁵⁵ See Article 28 of the PSD2.

⁴⁵⁶ See CORTET, RIJKS and NIJLAND, op. cit. No. 155, p. 21.

⁴⁵⁷ *Ibid.*, pp. 21-27.

⁴⁵⁸ *Ibid.*

⁴⁵⁹ *Ibid.*

⁴⁶⁰ *Ibid.*

⁴⁶¹ *Ibid.*

In conclusion, the PSD2 should be considered as an important directive that is not a mere “upgrade” of the previous directive with a few minor amendments. The regulators leapt forward and laid down provisions that can change the current situation and relationship between the banks and the Fintech companies. However, the regulators should not be overly satisfied since the PSD2 can be seen only as a piece of the puzzle.⁴⁶² Therefore, it is important to see the whole picture including other related areas, such as crypto-currencies and the possible issues that are connected with the development of these currencies.⁴⁶³

Nevertheless, the provided analysis mostly focused on the differences between the wording of the PSD and the PSD2 and the possible impacts these changes may bring about. Therefore, the following part of this thesis will briefly mention some of the factors that must be taken into account when assessing possible implications of the PSD2.

4.2. Is there a bright future for the Fintech Industry?

At the outset of this part, it is worth noting that the PSD2 has not been fully transposed by all the Member States. As of the day of completion of this thesis, there are still four Member States that have not transposed the PSD2 into their national law, namely Spain, Netherlands, Portugal and Romania.⁴⁶⁴ Even though the EBA emphasized that the delayed transposition shall not have effect on authorisation, registration or passporting of PISP and AISP⁴⁶⁵, this may have negative effects on possibility of entities to fully benefit from the rights conferred by the PSD2. As a result, it would be beneficial for all the stakeholders to remedy this situation and implement the PSD2 by the Member States that have not yet transposed the PSD2 into their national law as soon as possible.

As was already mentioned in part 3.3.6 of this thesis, the EBA has been mandated by the PSD2 to deliver twelve deliverables, which are crucial for proper functioning of the payment services system under the PSD2. Nevertheless, the EBA managed to complete ten out of these twelve deliverables before the transposition deadline of the PSD2, but some of these deliverables included postponed date of entry into force.⁴⁶⁶ Even though the EBA has already completed the remaining two deliverables⁴⁶⁷, the delays with adoption of these supplementary measures together with the postponed date of entry into force of some of the measures have precluded the

⁴⁶² See ROMĂNOVA, GRIMA and SPITERI, op. cit. No. 113, pp. 19-20.

⁴⁶³ See MASCHEK, op. cit. No. 113, p. 6.

⁴⁶⁴ See the details regarding national transposition of the PSD2 at the website “EUR-Lex”, available at: <https://eur-lex.europa.eu/legal-content/EN/NIM/?uri=CELEX:32015L2366>, last accessed 25 August 2018.

⁴⁶⁵ See the Opinion, op. cit. No. 435, pp. 10-11.

⁴⁶⁶ See the Opinion, op. cit. No. 435, p. 1. As regards the postponed date of entry into force, see e.g. Article 38 of the Delegated Regulation, op. cit. No. 393

full applicability of the PSD2 from the transposition deadline and did not provide market participants with enough time to prepare for the changes coming along with all the adopted measures. What is more, the EBA shall develop, operate and maintain the EBA register containing aggregated information regarding authorised and registered payment institutions in the respective Member States, but the register has not yet been launched.⁴⁶⁸

Another issue can be seen in different approaches of the competent authorities which is not uniform amongst the Member States. The UK's competent authority, i.e. the Financial Conduct Authority, is considered to be a proactive regulator that is supporting competition by various activities that it engages in, such as regulatory sandboxes.⁴⁶⁹ This approach apparently contributed to the seemingly smooth migration from the PSD to PSD2 that resulted in the current situation in which the register of PISP and AISP in the UK contains already forty-one entities that have been authorised or registered to carry out activities of payment initiation services or account information services (or both, as the case may be).⁴⁷⁰ On the other hand, the adaptation to the PSD2 has not been entirely smooth in all the Member States. One of the examples can be the Czech Republic in which three Czech Fintech companies⁴⁷¹ have applied for authorisation or registration as either PISP or AISP (one of them as early as in January), but none of them has obtained the requested authorisation or registration.⁴⁷² One of the main arguments for rejection of these applications was the missing insurance, which was not, however, offered by the insurance companies operating in the Czech Republic at the time of rejection.⁴⁷³ As a result, these

⁴⁶⁷ These two missing deliverables were the Guidelines on fraud reporting, op. cit. No. 436, and the Draft Regulatory Technical Standard on cooperation between competent authorities, see EBA, 'Final Report: Draft Regulatory Technical Standards on cooperation between competent authorities in home and host Member States in the supervision of payment institutions operating on a cross-border basis under Article 29(6) of PSD2' (31 July 2018), available at: <https://www.eba.europa.eu/documents/10180/2298183/Draft+RTS+on+home-host+cooperation+under+PSD2+%28EBA-RTS-2018-03%29.pdf>, last accessed 25 August 2018.

⁴⁶⁸ See Article 15(1) of the PSD2 read in conjunction with Article 14(1) thereof. For details regarding the EBA register see also the official websites of the EBA, available at: <http://www.eba.europa.eu/risk-analysis-and-data/register-of-payment-and-e-money-institutions-under-psd2;jsessionid=8971807C28A97D1C09B251E1FBBC8CCC>, last accessed 25 August 2018.

⁴⁶⁹ See e.g. SCARDOVI, op. cit. No. 51, pp. 156-157, and TEIGLAND, SIRI, LARSSON, MORENO and BOGUSZ, op. cit. No. 100, pp. 74-75. For details regarding regulatory sandbox see part 2.2.3 of this thesis.

⁴⁷⁰ See 'The Financial Service Register', Account Information & Payment Initiation Service Providers, available at https://register.fca.org.uk/shpo_searchresultspage?preDefined=AIPISP&TOKEN=3wq1nht7eg7tr, last accessed 25 August 2018. Please note that even though the register contains fifty-one entries, some of the entities are entitled to carry out both payment initiation services or account information services, and thus the total number of entities is currently forty-one.

⁴⁷¹ These Fintech companies include: BudgetBakers, Roger and Spendee, see 'ČNB zatím bankovní trh fintechům neotevřela. Požaduje specifické pojištění pro novou službu', E15, available at: <https://www.e15.cz/byznys/finance-a-bankovnictvi/cnb-zatim-bankovni-trh-fintechum-neotevrela-pozaduje-specificke-pojisteni-pro-novou-sluzbu-1348544>, last accessed 25 August 2018.

⁴⁷² *Ibid.* See also the official registered of the Czech National Bank that does not contain any PISP or AISP. Available at: https://apl.cnb.cz/apljerrsdad/JERRS.WEB07.INTRO_PAGE?p_lang=en, last accessed 25 August 2018.

⁴⁷³ *Ibid.*

companies cannot legally provide their services within the EU since they have not obtained the necessary authorisation or registration. It should be noted that the main point of this observation is not a criticism of the Czech National Bank, but this comment is rather trying to point out that the active approach of the competent authorities may contribute to the smooth functioning of the market and the development of the Fintech companies.

One of the advantages of banks is that almost everyone has a bank account and banks have been able to gain the trust of their clients, which may consider them as robust companies capable of protecting their savings.⁴⁷⁴ Consequently, they may prefer an established company over start-ups that are not established within the market, such as the Fintech companies. At the same time, it is difficult for the Fintech companies to compete with banks that have massive resources compared to the resources available to certain start-ups. Banks are well aware of the potential threats that are coming along with the expansion of the Fintech industry, and therefore they invest in new technologies, such as JPMorgan Chase that invested over USD 9.5 billion in technological innovations in 2016.⁴⁷⁵

However, the aforesaid may not be true for everyone since some people may rather use a novel application for management of their finances offered by the Fintech company than use the services of the banks. Further, the reputation of the banks has been substantially damaged in the aftermath of the Global financial crisis, which may contribute to the willingness of consumers to give Fintech companies a chance in order to prove that they may be reliable.⁴⁷⁶ Moreover, the Fintech companies cannot be considered only as start-up companies in view of the fact that some of these companies have already obtained banking licences and gathered investments, such as the Fintech company (or rather the digital bank) Monzo with expected valuation over GBP 1.5 billion and Transferwise, the platform for money transfers, valued at USD 1.6 billion.⁴⁷⁷

What is more, the competition between banks and the Fintech companies may become even tougher with an entry of new competitors that were originally technological companies, including companies such as Google, Amazon and Facebook, which are expanding into new markets.⁴⁷⁸ Unlike the Fintech companies, these technological companies, which are sometimes called “*Techfin companies*”, have their customer base already established and they have enough

⁴⁷⁴ See CORTET, RIJKS and NIJLAND, op. cit. No. 155, p. 21.

⁴⁷⁵ See ‘Financial technology is proving less of a battleground than feared’ (2017), The Economist, available at: <https://www.economist.com/special-report/2017/05/06/financial-technology-is-proving-less-of-a-battleground-than-feared>, last accessed 25 August 2018.

⁴⁷⁶ For details see part 2.1.3 of this thesis.

⁴⁷⁷ See ‘Monzo poised to join ranks of Europe’s fintech ‘unicorns’ (17 August 2018), available at: <https://www.ft.com/content/ef54082c-a16a-11e8-85da-eeb7a9ce36e4>, last accessed 25 August 2018.

⁴⁷⁸ See CORTET, RIJKS and NIJLAND, op. cit. No. 155, p. 20.

capital funds for their investments.⁴⁷⁹ Furthermore, Amazon already started its own lending platform and it offers credit cards to their customers, while the other companies are expected to follow shortly.⁴⁸⁰ Therefore, the banking system is not threatened only by the Fintech industry, but also by these other competitors that are eager to enter the market.

The above-mentioned considerations represent only a few of the factors that have to be taken into account when assessing the possible implications that the PSD2 may bring to the financial market. The PSD2 is one of the factors that may contribute to the transformation of the market, but we must be aware of the fact that many (if not all) of the changes coming along with modern technologies are not entirely dependent on the regulation. As a result, the market may move in other direction than expected and the expected new players, such as PISP and AISP, may not even be the main actors. That being said, we can expect that the Fintech companies will play an important role in the further development of the market with financial services.

In the light of the above, it can be concluded that the PSD2 represents rather a gradual evolution than a revolution. The PSD2 brings about many important changes, but many of these changes stem from the analysis of the PSD provided by the various stakeholders over the previous years. Further, it was pointed out that there many additional factors which have to be taken into account when assessing the possible implications of the PSD2. Some of these factors, such as the non-existence of transposition measures in four of the Member States, delayed adoption of the supplementary measures to the PSD2 and different approaches of the competent authorities, support the argument that the PSD2 has not yet caused a revolution in the payment systems. Nevertheless, this thesis pointed out that some of the desired effects of the PSD2 may arise after the moment when all the supplementary measures come into effect and that there are other factors which may contribute to the development of the Fintech industry.

⁴⁷⁹ *Ibid.* See also 'Fintech won't be the end of the big banks. Tech-fin might be' (17 January 2018), Capgemini Consulting, available at: <https://www.capgemini.com/consulting/2018/01/fintech-wont-be-the-end-of-the-big-banks-tech-fin-might-be/>, last accessed 25 February 2018.

⁴⁸⁰ *Ibid.*

5. Conclusion

Based on the provided analysis and examination of the PSD2, the author of this thesis concludes that the PSD2 is important measure incorporating many changes to the current payment services framework at the EU level, which may contribute to the development of the Fintech industry. Even though the Fintech industry and the respective Fintech companies are rapidly growing both in size and numbers, it is submitted that the Fintech industry will not fully replace the banks. However, the Fintech companies have already gained market share in the recent years and, as a result, banks were forced to (re)consider their position in the market with financial services and evaluate the future prospects in this industry. These events together with the rapid growth of modern technology and tightened regulation of banking system in the wake of the Global financial crisis have caused banks to amend their business strategy and respond to the new challenges.

In order to provide an answer to the question posed at the beginning of this thesis, i.e. to answer whether adoption of the PSD2 combined with other novelties (including Fintech) are capable of disrupting the current banking system, it was first necessary to analyse the development of the banking system and the Fintech industry together with their respective regulations.

First of all, it was submitted that the banking system is heavily regulated industry, which is also attributable to the Global financial crisis. From the provided analysis it became apparent that many measures have been adopted at the EU level as a response to the Global financial crisis with the aim to prevent similar financial crisis. These measures focused on provisions relating to capital requirements (the CRD IV and the CRR), bank resolution and recovery (SRMR Regulation and BRRD) and financial instruments (EMIR Regulation, MiFID II Directive and MiFIR Regulation). As a result, the banking system can be considered to be heavily regulated both at the EU level and at the national level, which precludes banks to be as flexible as the Fintech companies that often make (or used to make) use of the regulatory gaps, and thus do (did) not have to adhere to the same obligations as banks.

Subsequently, the thesis argued that the Global financial crisis, during which banks suffered large financial losses, contributed to the rapid development of the Fintech industry in the years following the crisis. This argument was supported by the opinion of the wide public which considers the banks and especially the bankers to be the main culprits of the Global

financial crisis. As a result, the bank's reputation has been seriously damaged, which provided the Fintech industry with an opportunity to take advantage of this fact to support its growth.

The analysis indicated that the Fintech companies are currently regulated based on their activities, which means that the level of regulation varies from no regulation at the EU level to heavy regulation. Furthermore, the thesis discussed the different approaches of the Member States towards the Fintech industry and it indicated that some of the Member States are willing to provide the Fintech companies with certain measures enabling them to further develop. This was supported by one of the analysed approaches that consist in "*regulatory sandboxes*", which provide the Fintech companies with a unique opportunity to put their services to the test in a safe environment under the supervision of the regulators. Consequently, it was submitted that a reasonable regulation of the Fintech industry is required in order to protect all the stakeholders and, at the same time, to provide these companies with the possibility to grow.

After the sections discussing regulation of banking and the Fintech industry, it was crucial to examine the current regulation of the payment systems under EU law, which can hinder or contribute to the possible development of the Fintech industry. The thesis asserted that the situation concerning regulation of the payment systems at the EU level has changed and developed over the years. Subsequently, this argument was supported with the analysis of the development at the EU level from which it became apparent that the regulatory framework has gradually developed from no regulation at the EU level to the current situation when this regulatory framework is predominately made up by regulations and full harmonisation directive, which contribute to the uniform development of the regulation.

Even though it was submitted that the PSD contributed to the development of the payment systems at the EU level, the thesis presented several issues that were identified during the assessment of the effects of the PSD, such as the scope and exclusions from the scope of the PSD and new market participants that were not covered by the PSD, which resulted in adoption of the PSD2.

Further, the thesis presented the main changes coming along with adoption of the PSD2 and argued that not all the changes can be considered as a step in the right direction. One of the insufficient amendments of the PSD included in the PSD2 can be seen in the scope and exclusions from the scope of the PSD2. While it was concluded that clarifications of the scope and exclusions from the scope are welcomed, it was noted that the PSD2 still contains many options of the Member States or their competent authorities to derogate from the provisions of the PSD2. Therefore, it would be appropriate to reduce the number of these options in the future,

which would ensure unified application between the Member States. One of the options would be to adopt a regulation instead of a full harmonisation directive.

The second important change included in the PSD2, and arguably the most important, covers two new payment service providers (AISP and PISP) together with the obligations of the AS PSP (mostly banks) to provide these two new service providers with an access to their payment accounts if AISP and PISP provide services to the users (owners) of the payment accounts. Although these payment service providers may provide the Fintech companies with an opportunity to further penetrate the market, the thesis demonstrated that this has not yet materialized due to various reasons. The thesis presented that the main obstacles include postponed date of entry into force of the crucial measure (i.e. the full operation of the respective measures shall arrive on 14 September 2019), inconsistent approaches of the competent authorities and delayed transposition of the PSD2 into national law in some of the Member States.

In general, the thesis argued that the PSD2 can be seen as a step in the right direction given that the PSD2 is not a mere revision of the original payment services directive, but it appropriately responds to the new developments in modern technology. However, the thesis identified several issues connected with adoption of the PSD2 and pointed out that not all of the measures and possibilities connected with the PSD2 are fully applicable.

As a result, it is not possible to fully assess all the implications connected with adoption of the PSD2. That being said, the findings of this thesis indicate that the PSD2 is not capable of disruption of the banking system as we know it. The Fintech industry may profit from the changes coming along with the PSD2, but banks have enough time to prepare for these changes. As a result, banks will be definitely affected by the modified rules included in the revised PSD2, but they are already taking steps in order to adopt to this situation. Accordingly, it remains to be seen whether the PSD2 will meet the objectives that it envisaged and whether the Fintech industry will make use of the provisions of the PSD2 to their full potential.

List of abbreviations / Seznam zkratek

AISP	Account Information Service Providers
API	Application Programme Interface
AS PSP	Account Servicing Payment Service Providers
BRRD	Directive 2014/59/EU
CJEU	Court of Justice of the European Union
CRD IV	Directive 2013/36/EU
CRR	Regulation (EU) No. 575/2013
EBA	European Banking Authority
ECB	European Central Bank
EEA	European Economic Area
EMIR Regulation	Regulation (EU) No. 648/2012
EU	European Union (for the purpose of this thesis, EU shall also mean European Community)
EUR	Euro
FCA	UK Financial Conduct Authority
Fintech	Financial Technology as defined in part 2.2
GBP	Great British Pound
GDPR	Regulation (EU) 2016/679
Global financial crisis	The Global financial crisis of 2007-2008 as defined in part 2.1.2
PISP	Payment Initiation Service Providers
PSD	Directive 2007/64/EC
PSD2	Directive (EU) 2015/2366
MiFID II Directive	Directive 2014/65/EU
MiFIR Regulation	Regulation (EU) No 600/2014
OTC	Over-the-counter derivatives
TEC	Treaty establishing the European Economic Community
TEU	Treaty on European Union
TFEU	Treaty on the functioning of the European Union
SRM	Single Resolution Mechanism
SRMR Regulation	Regulation (EU) No. 806/2014
Member States	Member States of the European Union
USA	United States of America
USD	United States Dollar

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PSD2: Dopady na bankovní a fintech sektor

Abstrakt (ČJ)

Hlavním cílem této diplomové práce je kriticky zhodnotit možné dopady zrevidované směrnice o platebních službách (PSD2) na bankovní a fintech sektor. Z toho důvodu se práce nejdříve zaměřuje na současný bankovní systém společně s aktuálními problémy souvisejícími s globální finanční krizí z let 2007 a 2008, které vedly ke značným změnám regulace bankovního systému na evropské úrovni. Práce následně srovnává bankovní systém s rostoucím sektorem finančních technologií (Fintech) a poskytuje přehled tohoto sektoru společně s příslušnou regulací. Po přehledu pojednávajícím o bankovníctví a fintech sektoru následuje analýza původní směrnice o platebních službách (PSD) a PSD2, která rovněž obsahuje příslušnou judikaturu Soudního dvora Evropské unie. Poslední část práce hodnotí možné dopady PSD2, přičemž zohledňuje další významné prvky, které mohou ovlivnit možný rozvoj fintech sektoru.

Z příslušné analýzy vyplývá, že regulace bankovního systému na evropské úrovni byla posílena v návaznosti na globální finanční krizi s ohledem na to, že nedostatečná regulace bankovníctví byla jedním z hlavních příčin vzniku globální finanční krize. V práci je dále argumentováno, že překotný vývoj moderních technologií společně s následky globální finanční krize pro bankovníctví přispěly k rozvoji fintech sektoru. Práce poukazuje na fakt, že fintech sektor nebyl tak značně regulován, přičemž tato situace se již změnila.

V práci jsou dále srovnávána příslušná ustanovení PSD a PSD2 společně s následným představením hlavních změn, které přichází v návaznosti na přijetí PSD2. Tato práce dále argumentuje, že hlavní změny mohou být spatřovány v pozměněné oblasti působnosti směrnice, přijetí dvou nových poskytovatelů platebních služeb, a to konkrétně poskytovatelů služeb iniciování platby a služeb informování o účtu, dále v opatřeních týkajících se bezpečnosti a posílení ochrany spotřebitelů.

Závěrečná část práce argumentuje, že PSD2 společně se změnami, které přichází s přijetím této směrnice, mohou být považovány za krok správným směrem. Zároveň je ale nutné vzít v potaz další relevantní faktory. V souladu s tím představuje práce některé z těchto relevantních faktorů, a to konkrétně pozdní provedení této směrnice několika členskými státy Evropské unie, rozdílné přístupy příslušných orgánů a novou konkurenci. Ačkoliv práce predestinuje, že směrnice PSD2 může přispět k dalšímu rozvoji fintech sektoru, zároveň je připuštěno, že je pravděpodobně velmi brzy na to, aby mohly být zhodnoceny všechny možné dopady této směrnice.

Klíčová slova: PSD2, Fintech, bankovníctví, platební služby

PSD2: The Implications for Banking and the Fintech Industry

Abstract (EN)

The main aim of this diploma thesis is to critically assess the implications of the revised Directive on Payment Services (PSD2) for Banking and the Fintech Industry. In order to do so, the thesis firstly focuses on the current banking system together with the recent problems associated with the Global financial crisis of 2007-2008, which have given rise to substantial changes of the regulation of banking system at the EU level. Subsequently, the thesis compares the banking system with the rising financial technology (Fintech) industry and provides an overview of this industry together with regulation thereof. The provided overview of Banking and the Fintech Industry is followed by the analysis of the original Directive on Payment Services (PSD) and the PSD2, which also includes relevant case-law of the CJEU. Finally, the last part of the thesis assesses the possible implications of the PSD2, while it takes into account other relevant factors that may affect the potential development of the Fintech Industry.

From the respective analysis it becomes apparent that the regulation of the banking system at the EU level has been strengthened in response to the Global financial crisis given that the insufficient regulation of banking was one of the main causes of the Global financial crisis. Subsequently, it is argued that the rapid development of modern technology together with the consequences of the Global financial crisis on banking contributed to the growth of the Fintech Industry. The thesis notes that the Fintech industry was not heavily regulated, but the situation has changed.

Further, the thesis compares the provisions of the PSD and PSD2 and subsequently presents the main changes coming along with adoption of the PSD2. The thesis contends that the main changes can be seen in the amended scope of the directive, two new service providers, i.e. Payment Initiation Service Providers and Account Information Service Providers, security measures and enhanced consumer protection.

In the last part, the thesis argues that the PSD2 and the changes coming along with its adoption should be considered as a step in the right direction, but, at the same time, other relevant factors must be considered. Accordingly, the thesis presents some of the factors, such as late transposition in the EU member states, different approaches of the competent authorities and new competitors. While the thesis contends that the PSD2 can contribute to the further development of the Fintech Industry, it concedes that it is probably too early to assess all the possible implications.

Key words: PSD2, Fintech, Banking, payment services